



Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 73010

Entry Year: 2028

Acreage: 7,361

County: Clare

Management Area: High Sand Plains

Stand Examiner: Colton Behrmann

Legal Description:

T19N R05W Sections 6T19N R06W Sections 1-3 & 10T20N R05W Sections 2, 11, 13-17, 19-22, 29-32T20N R06W Sections 24, 25, 26, 34-36

Identified Planning Goals:

The Kirtland's Warbler management area (MA) consists of fifteen units of land that are managed for the federally endangered Kirtland's warbler. Kirtland's warbler management is guided by two documents: Kirtland's Warbler Breeding Range Conservation Plan and Operational Plan for Kirtland's Warbler Habitat Management on Michigan State Forests. Of the 148,017 acres of state forest land that make up the Kirtland's Warbler management area, approximately 90,000 acres, most of the jack pine in the management area, have been identified as essential habitat where management is done in accordance with the Kirtland's Warbler Conservation Plan and Operational Plan. Management on the portion that is not classified as essential habitat will emphasize balancing the age classes of aspen and red pine and regenerating the aging oak resource. Management activities may be constrained or modified based on management recommendations described in the Conservation Strategy. Expected trends within this 10-year planning period are introduced pests and diseases and assuring jack pine regeneration on Kirtland's warbler sites.

Soil and topography:

The main soil types are well to excessively drained Grayling and Graycalm soils. There are some other wetter soils along the north and south edges of the compartment. These are associated with the Muskegon River, Green Creek and Floodwood Creek.

The terrain is flat to undulating. However, there are steep slopes that border the flood plains of the Muskegon River

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The compartment is a matrix of State Land, US Fish and Wildlife Land, and private land. The private land ranges in size from small tracks to parcels greater than 100 acres. The parcels are used for permanent and seasonal residences and recreational properties.

Unique Natural Features:

There are several MNFI hits in this compartment. Most of the records are from the 1990's. The species that have records in or near the compartment are Eastern Massasauga, Secretive Locust, Ginseng, Hill's Thistle, Red Legged Spittle Bug, Kirtland's Warbler, Blanding's Turtle, Wood Turtle, and two mussels Elktoe and Pigtoe.

Archeological, Historical, and Cultural Features:

There are several hits on the HAL data base in the compartment

Special Management Designations or Considerations:

This compartment is in the Kirtland's Warbler Management Unit. It contains the essential habitat for the warbler south of the Muskegon River in the Gladwin Management Unit.

Watershed and Fisheries Considerations:

The Muskegon River makes up the northern boundary of the compartment. The southern edges of it are bounded by the Floodwood Creek, Prestle Creek, and Green Creek.

Wildlife Habitat Considerations:

Wildlife Habitat Considerations: Compartment #10 timber harvest and planting prescriptions are heavily influenced by the needs of the endangered species the Kirkland's Warbler. Jack Pine stands in this compartment will be managed to provide suitable habitat for the warblers. A Kirkland's Warbler management plan exists outlining a cutting rotation for this compartment. Some game species that use this compartment include white-tailed deer, black bear, ruffed grouse and wild turkey. Many other wildlife species likely to use this compartment include upland sandpiper, common nighthawk, brown thrasher and eastern hognose snake. Access to this compartment can be gained through N. Lake Station Ave. and Blueberry Trail.

Mineral Resource and Development Concerns and/or Restrictions

No known potential exists for commercial development of metallic minerals in this part of the state. The nearest known active sand/gravel operation occurs approximately one mile northeast, and there appears to be some potential for sand & gravel within the compartment on the uplands. The compartment overlaps with the Cranberry Lake and Winterfield oil & gas fields. The Stray gas fields have been converted to gas storage, but some oil production still occurs deeper carbonate formations. There was past oil production in the southwest portion of the compartment, and there has been renewed leasing activity in this area the last couple of years. There may be some additional potential for oil development in this part of the compartment. There may be potential for undiscovered geologic hydrogen beneath the compartment. The State does not own all the mineral rights within the compartment. Because the mineral estate is the dominant estate, reasonable access to the surface must be provided to private owners if they choose to explore or develop their mineral rights.

Vehicle Access:

The access is good off county roads and poor dirt roads. Many of the poor dirt roads are maintained and used by Consumers Energy to maintain injection well sites and pipelines.

Survey Needs:

The area has been extensively surveyed. Most of the main corners are in and the office has the survey maps on file.

Recreational Facilities and Opportunities:

There is a snowmobile trail that runs through much of the compartment. In addition, many people canoe and tube on the Muskegon River. The area is also heavily used by hunters and disperse campers.

Fire Protection:

This compartment is in Zone IV and contains concentrations of high hazard fuels (large jack pine stands) and a well-developed wildland urban interface. This interface includes permanent and seasonal residences. There is also oil and gas activity in the compartment, including a high pressure gas pipeline. Access for fire suppression is along the county roads and forest two-tracks. This leads to good access in general. Overall the fire danger is high in this compartment.

Additional Compartment Information:

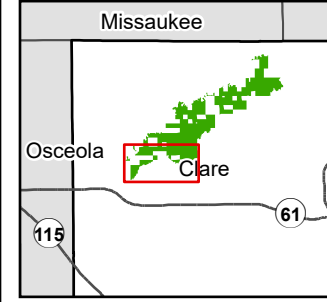
The following reports from the Inventory are attached:

- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

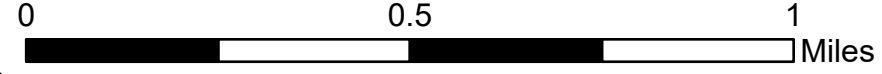
The following information is displayed, where pertinent, on the attached compartment maps:

- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

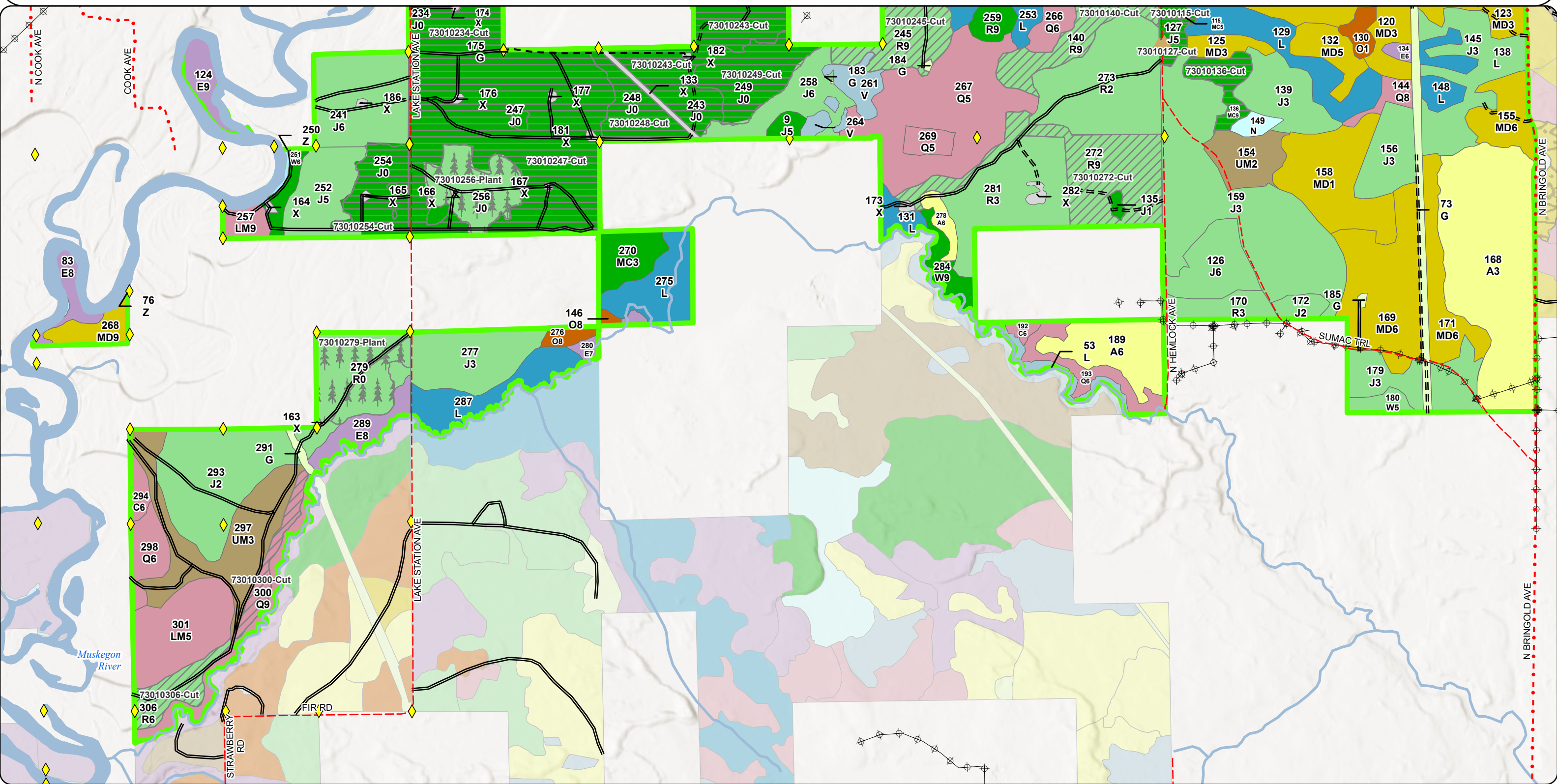
Cover Type & Treatments Map



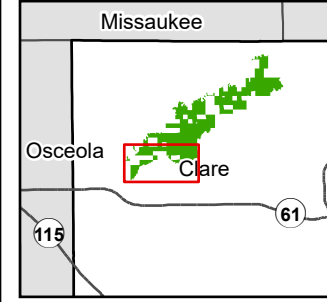
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 YOE: 2028
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 Examiner: Colton Behrmann
 Date Exported: 05/20/2026
 Map Phase: Web Post



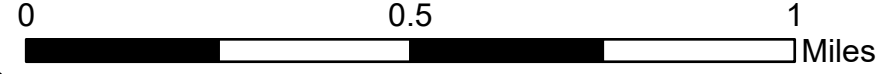
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| <ul style="list-style-type: none"> ◆ Survey Grade Corners ▲ Berm — DNR - Secondary Forest Road == DNR - Forest Access Route - - - Federal / State - Dirt / Gravel Road - . . . County - Gravel Road - - - County - Dirt Road (Seasonal) | <ul style="list-style-type: none"> — Streams — Lakes and Rivers ⊕ Electric ▭ Compartment Boundary ▭ Clearcut ▨ Thinning ▭ Planting (tree species) ■ 412 - Oak Types | <ul style="list-style-type: none"> ■ 413 - Aspen ■ 419 - Mixed Upland Deciduous ■ 421 - Planted Pines ■ 422 - Natural Pines ■ 430 - Upland Mixed Forest ■ 500 - Water ■ 611 - Lowland Deciduous Forest ■ 612 - Lowland Coniferous Forest ■ 613 - Lowland Mixed Forest ■ 110 - Low Intensity Urban ■ 310 - Herbaceous Openland ■ 622 - Lowland Shrub ■ 623 - Emergent Wetland ■ 629 - Mixed non-forested Wetland |
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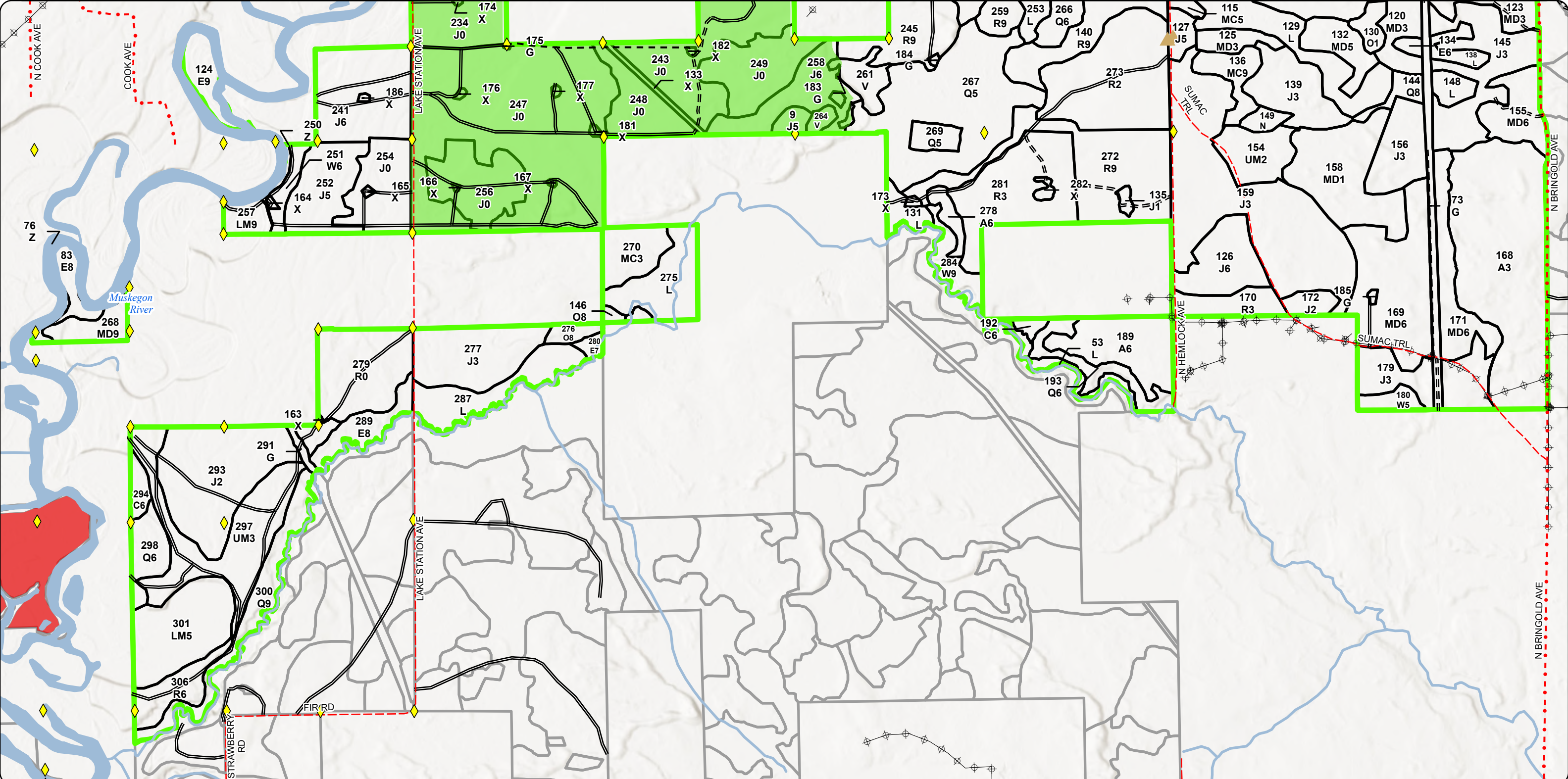
Special Conservation Areas



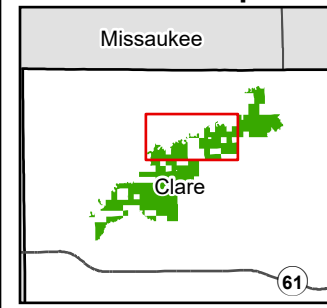
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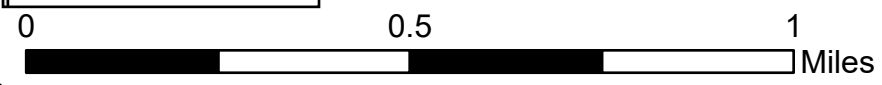
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- High Conservation Value Areas
- Ecological Reference Areas
- Dedicated Habitat Areas
- Kirtland's Warbler Habitat



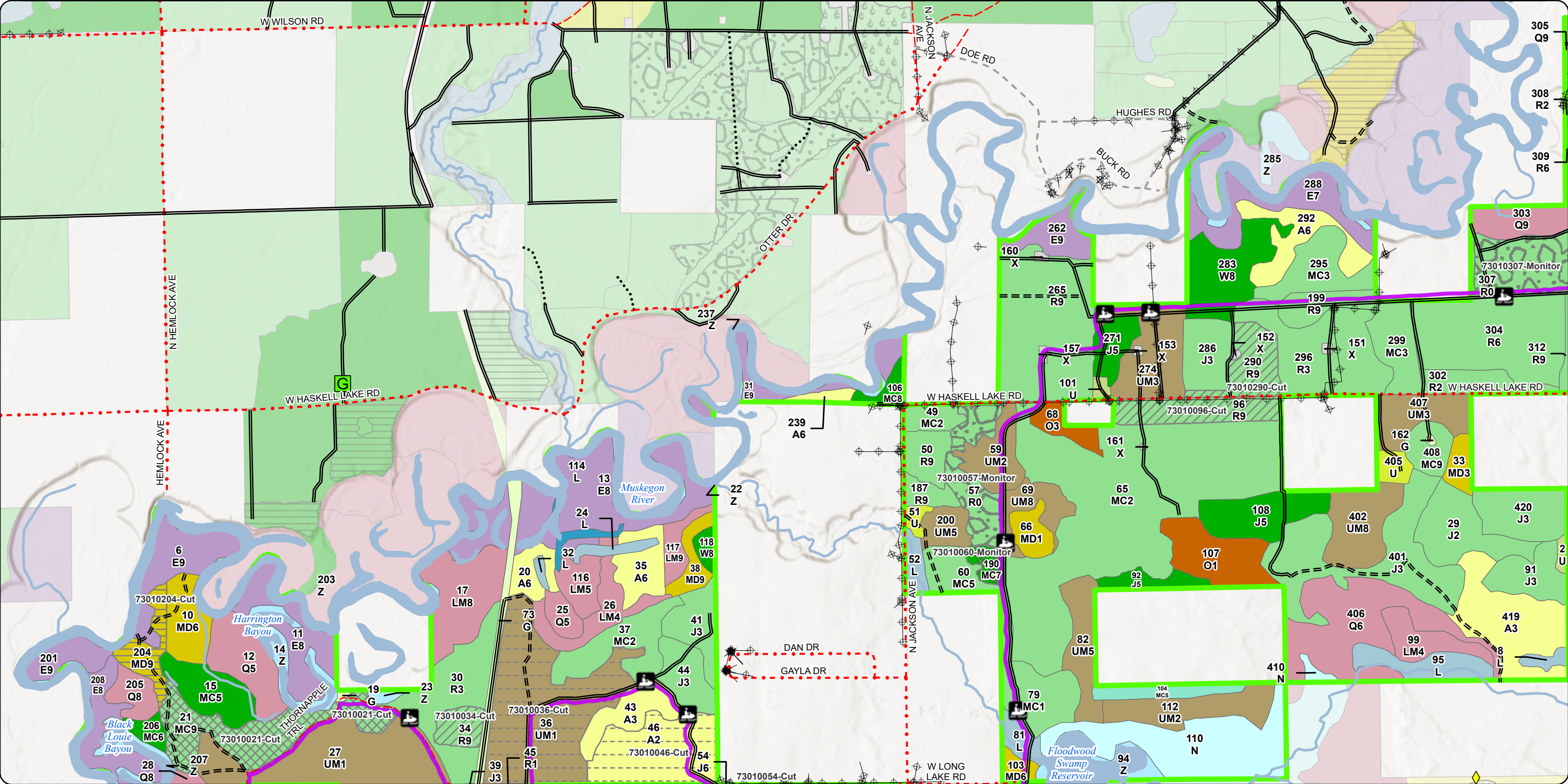
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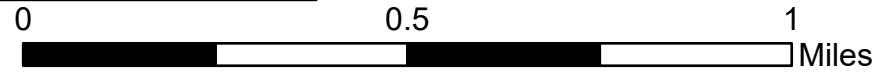
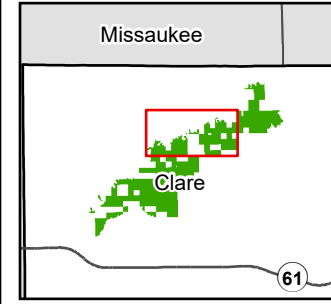


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- 412 - Oak Types
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- 421 - Planted Pines
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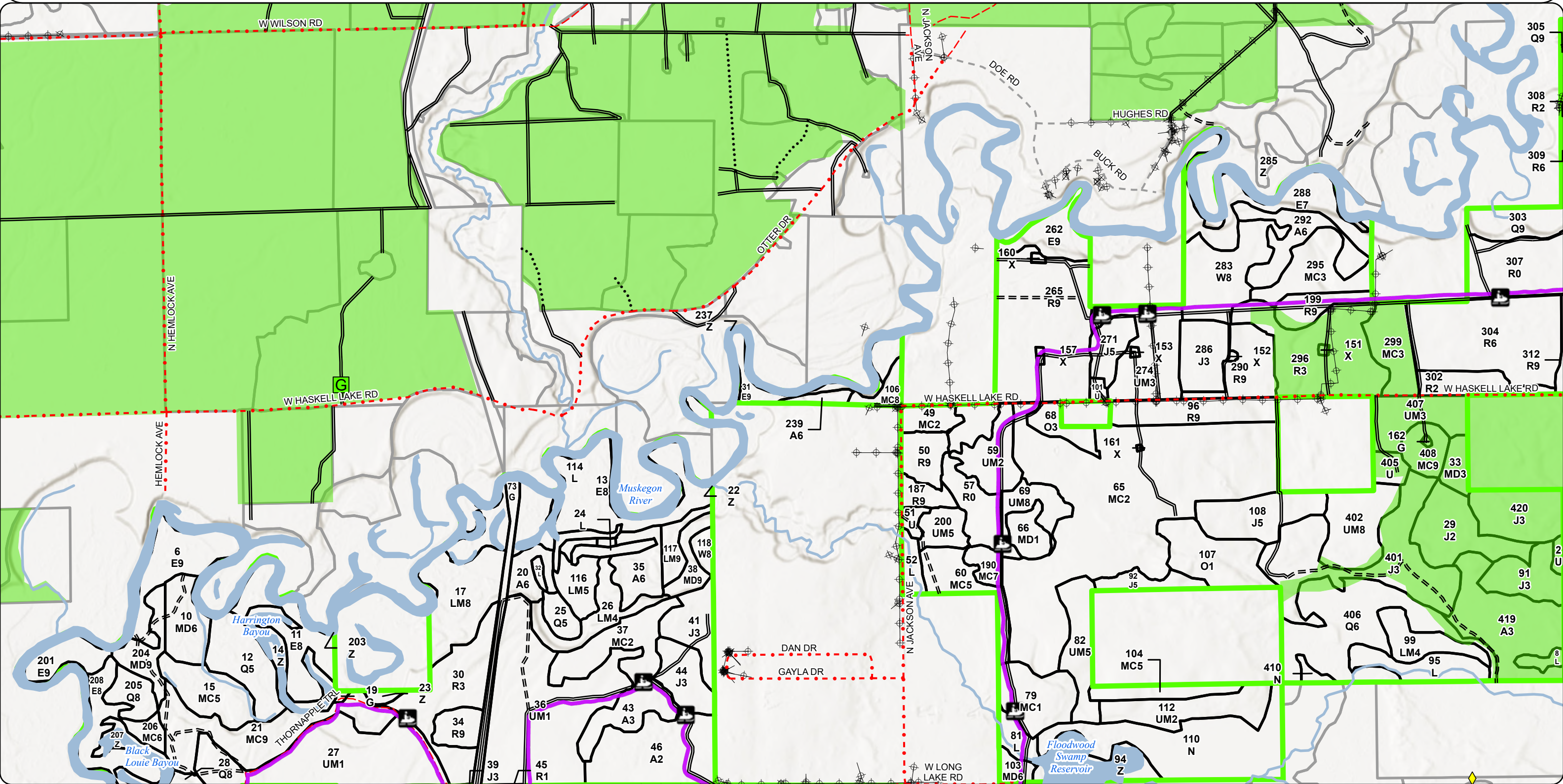


Special Conservation Areas & Site Conditions Map

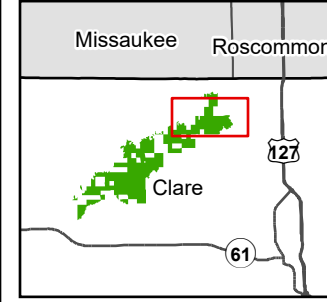
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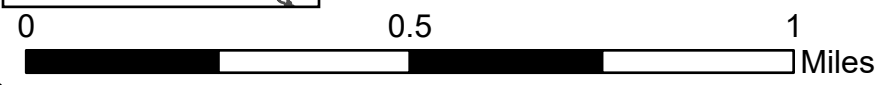
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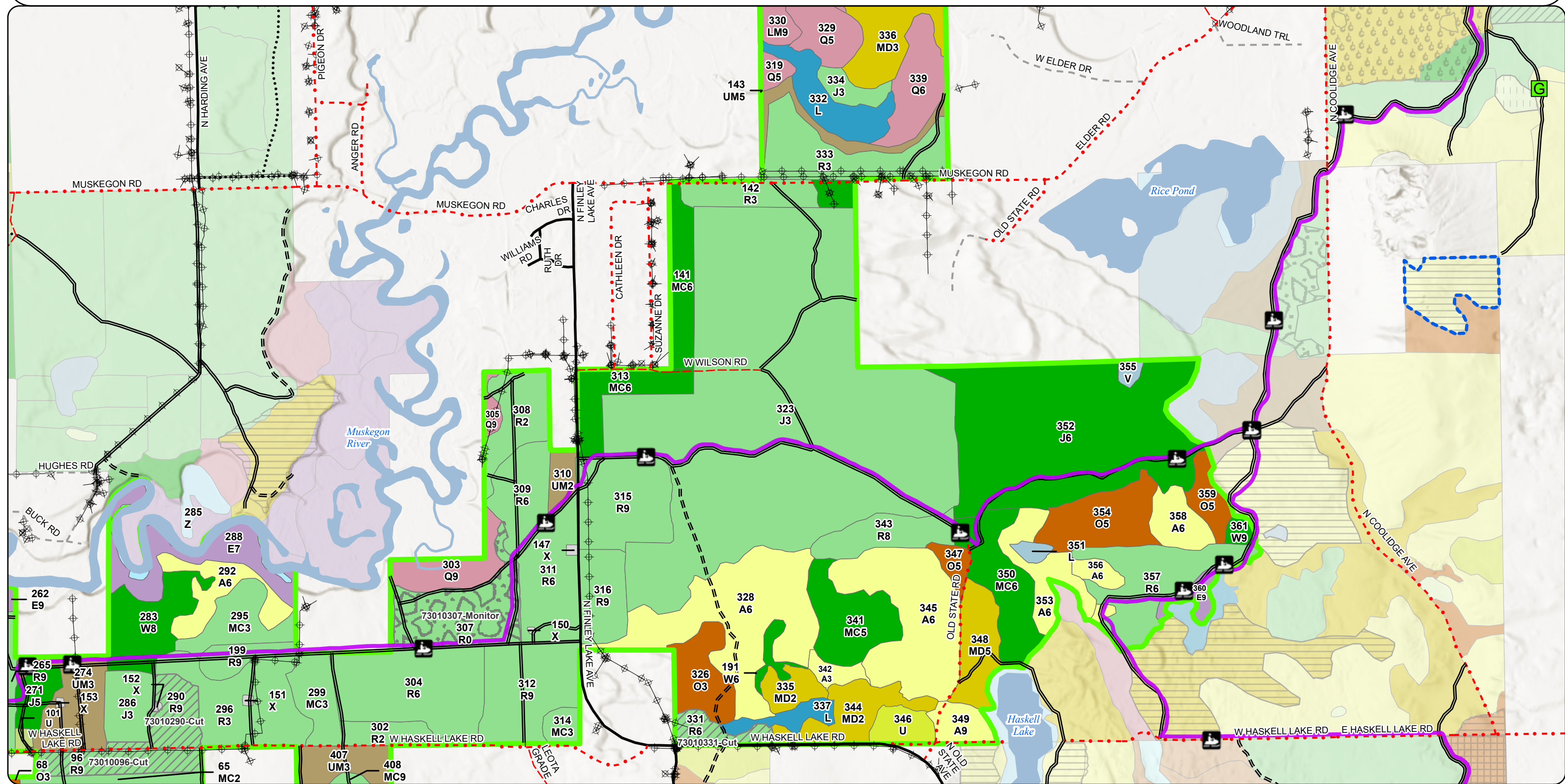
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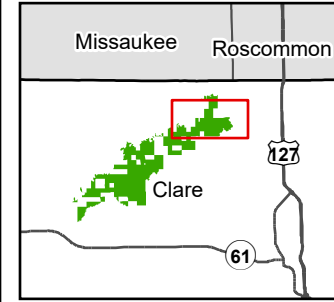
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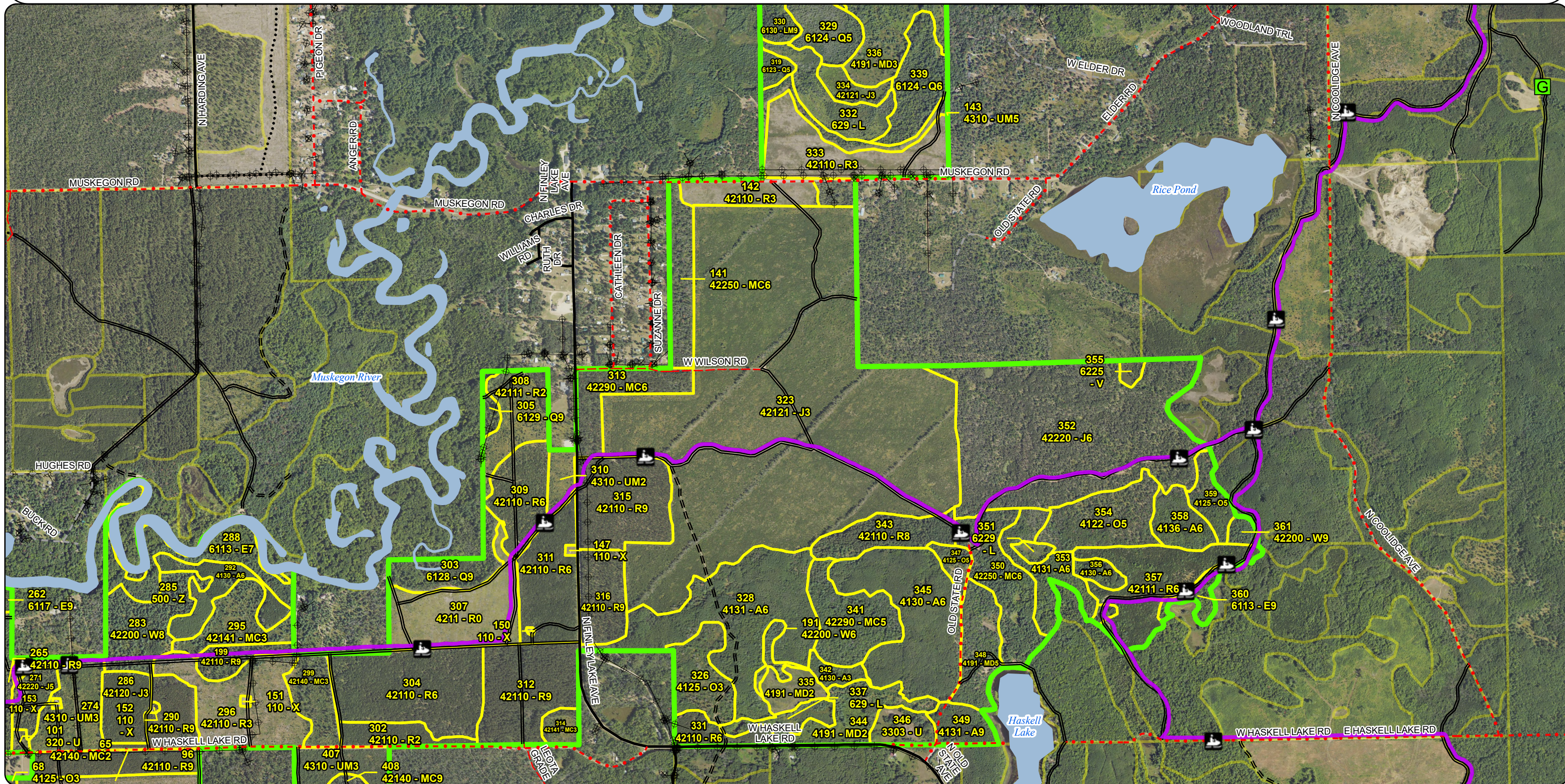
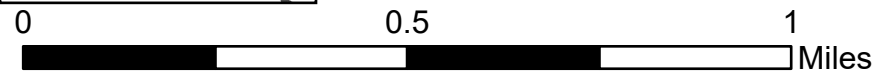
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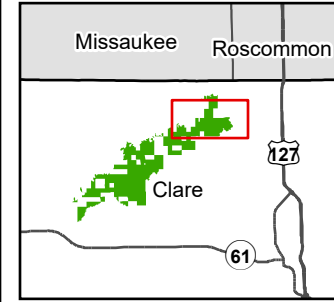
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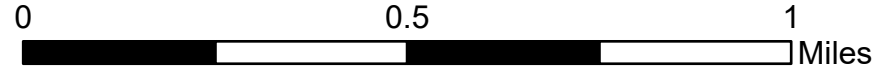
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Special Conservation Areas & Site Conditions Map



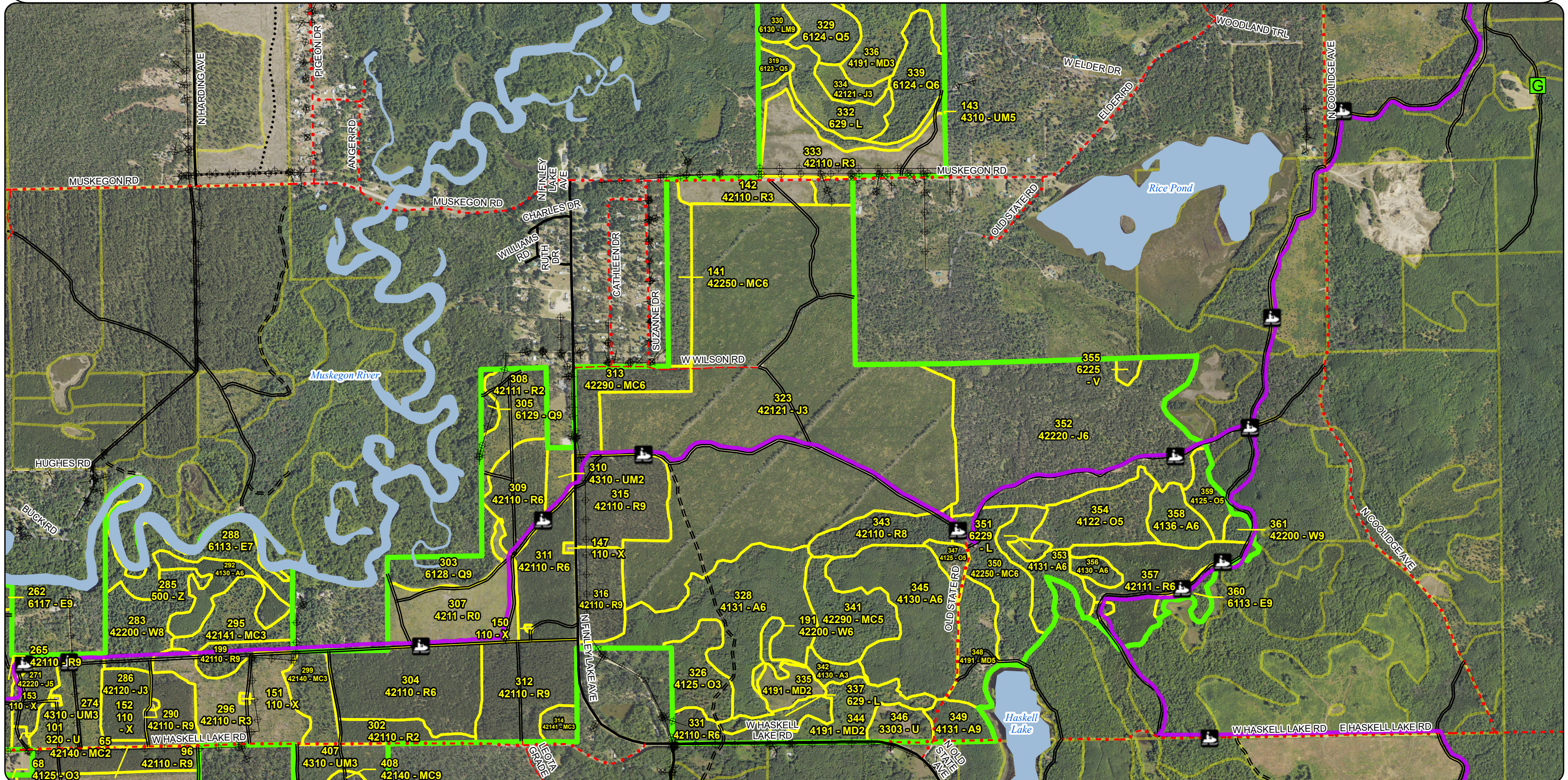
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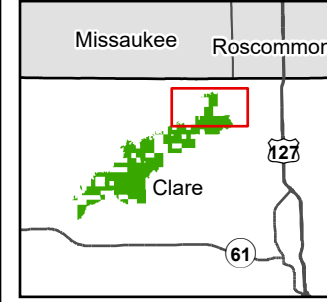
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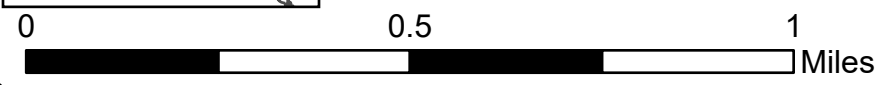
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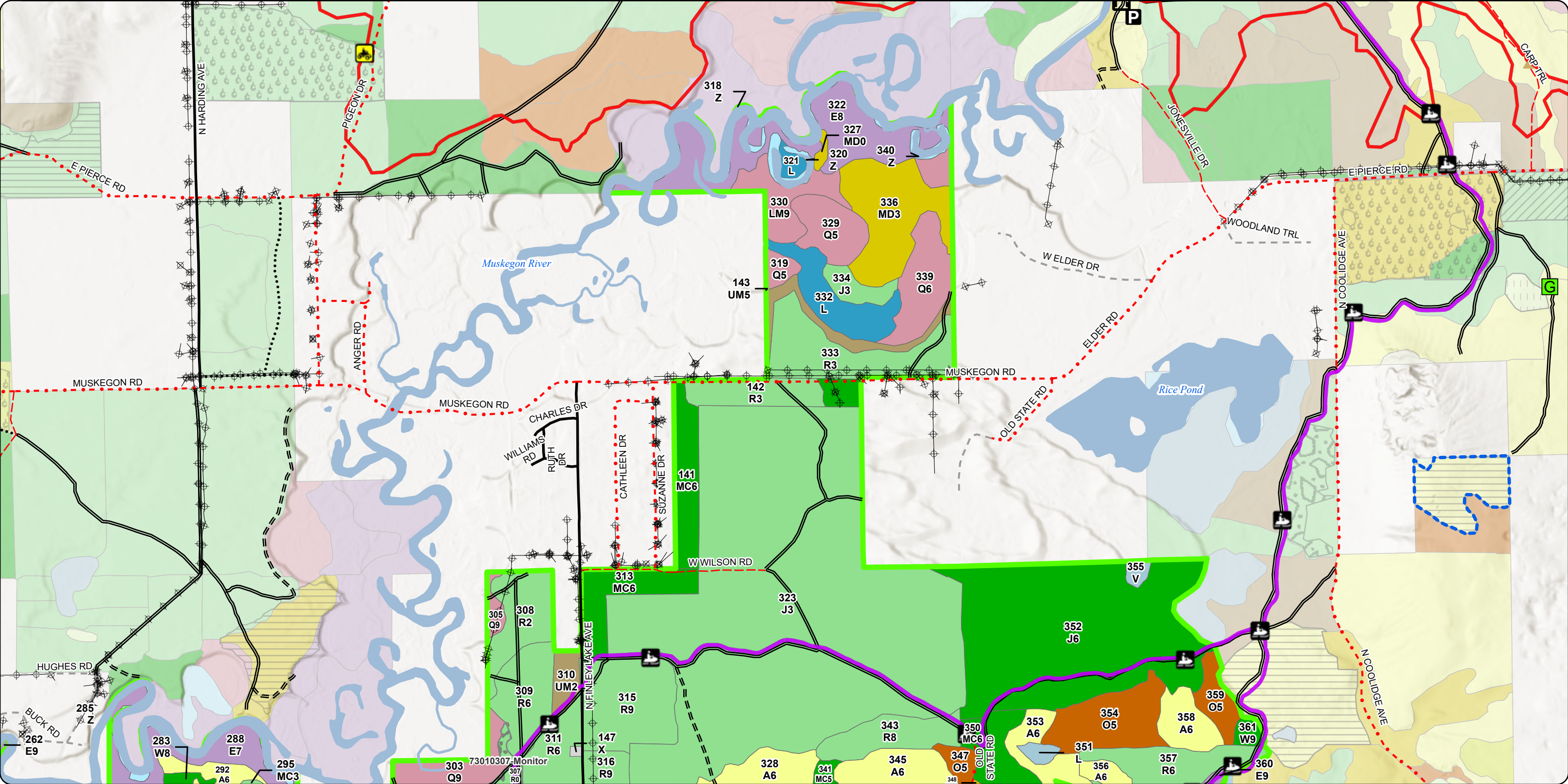
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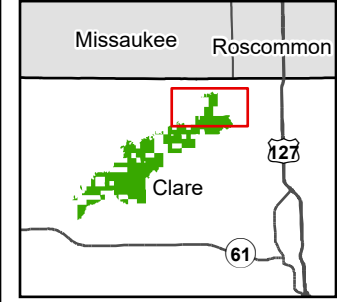
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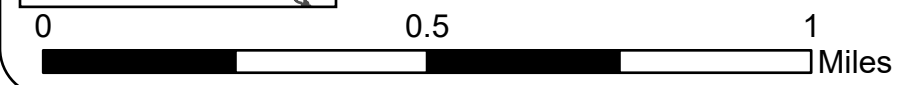
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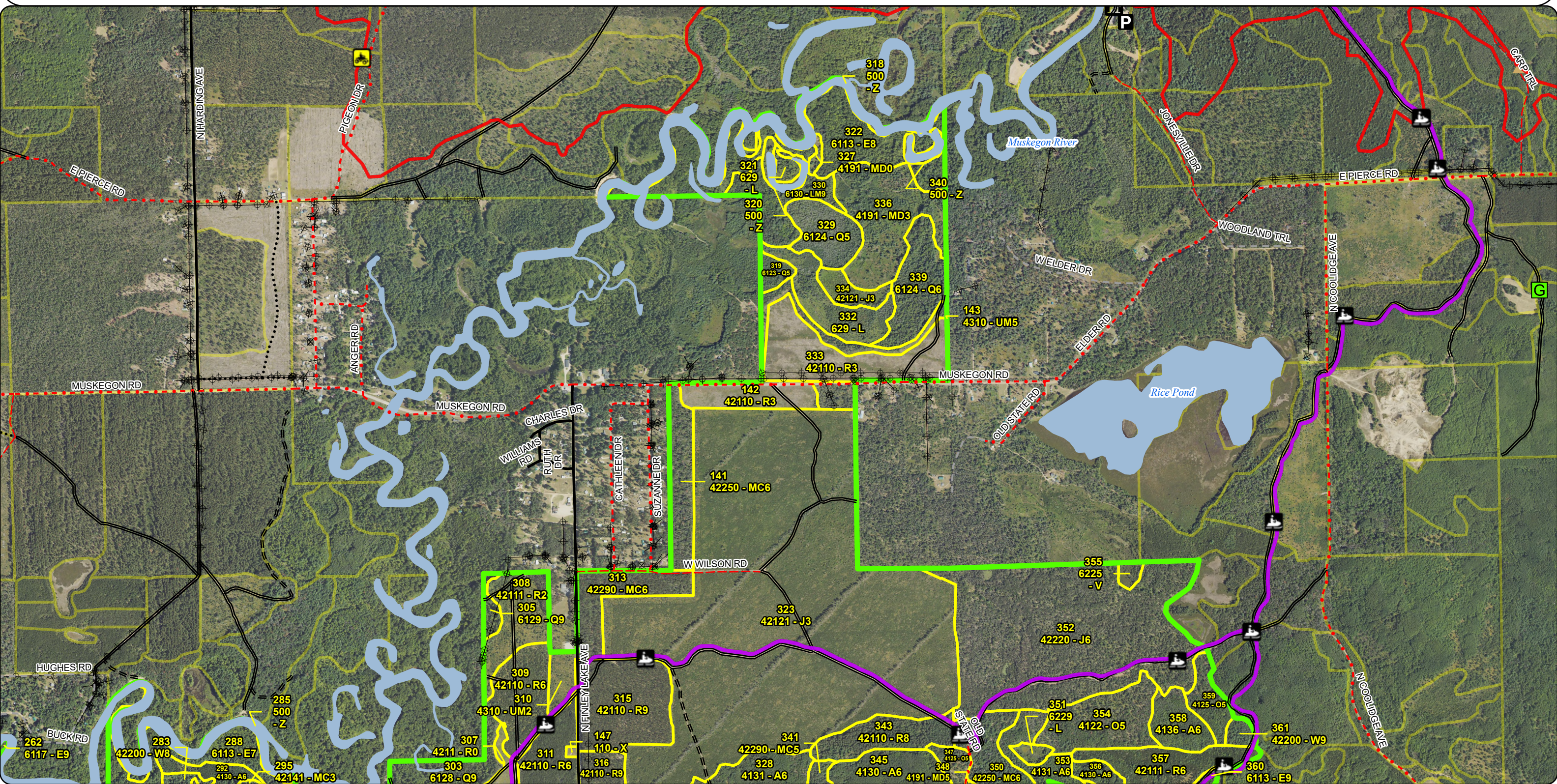
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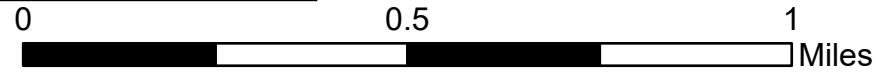
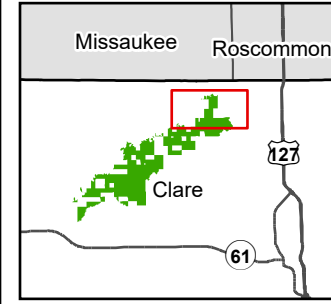
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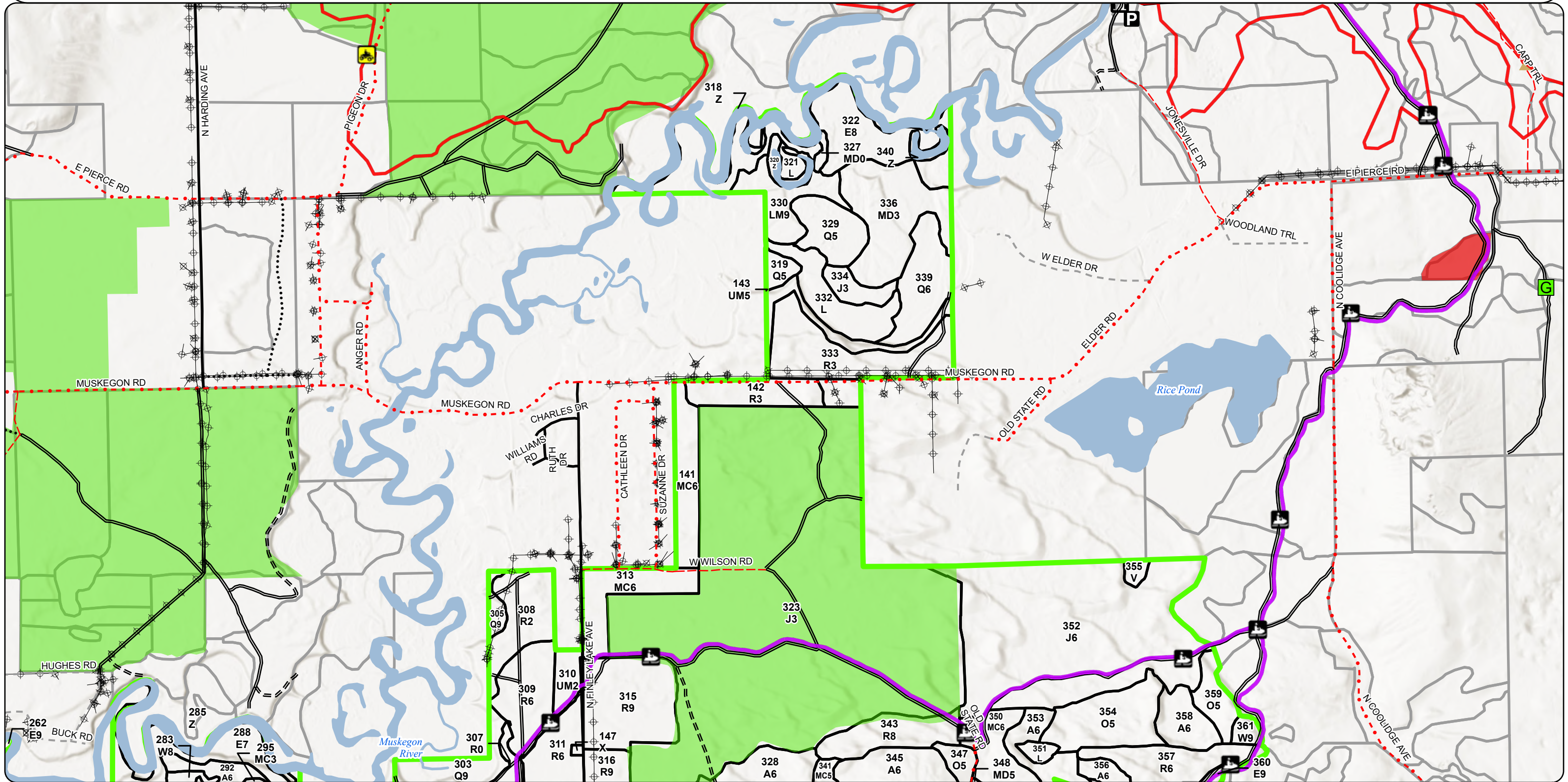


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Report 1 – Total Acres by Cover Type and Age Class

Gladwin Mgt. Unit

Compartment 10

Year of Entry 2028

Colton Behrmann: Examiner



Age Class

	Non-Forest	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150+	Uneven-Aged	Total
Aspen	0	94	49	12	267	28	23	0	0	0	0	0	0	0	0	0	0	0	473
Bog	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Cedar	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	7
Herbaceous Openland	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Jack Pine	446	0	479	797	180	33	183	52	11	5	0	0	0	0	0	0	0	0	2186
Low-Density Trees	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Lowland Aspen/Balsam Poplar	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Lowland Conifers	0	0	0	0	19	10	9	23	12	16	0	47	0	70	0	0	0	86	291
Lowland Deciduous	0	0	0	0	0	25	0	2	0	0	23	84	27	9	0	0	0	205	373
Lowland Mixed Forest	0	0	0	0	23	12	0	0	0	7	34	0	0	0	0	0	0	110	185
Lowland Shrub	233	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	233
Marsh	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Mixed Upland Deciduous	2	9	154	66	67	68	0	0	12	7	11	0	0	10	0	0	0	0	406
Natural Mixed Pines	0	0	0	62	0	5	39	30	145	34	50	5	0	0	0	0	0	17	387
Oak	0	0	20	40	36	4	37	0	0	0	0	5	0	0	0	0	0	0	142
Planted Mixed Pines	0	0	217	19	0	0	0	0	17	9	49	0	0	0	0	0	0	0	311
Red Pine	252	53	256	187	83	23	0	79	23	216	236	0	0	0	0	0	0	0	1407
Upland Conifers	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9
Upland Mixed Forest	0	0	200	120	70	111	0	0	11	0	19	0	0	0	0	0	0	22	552
Upland Shrub	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Urban	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Water	158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158
White Pine	0	0	0	0	0	27	5	25	10	3	4	0	0	0	0	0	0	0	74
Total	1246	156	1375	1303	754	346	296	220	241	297	426	143	32	89	0	0	0	440	7358



Report 2 – Treatment Summary

Gladwin Mgt. Unit
Year of Entry: 2028

Acres of Harvest

Compartment 10
Total Compartment Acres: 7,361

Commercial Harvest - 4954
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

	Clearcut	Selection	Patch Clearcut	Seed Tree	Shelterwood	Thinning	Overstory Removal	Salvage	Other	Total Acres
Aspen	0	0	0	0	0	35	0	0	0	35
Jack Pine	504	0	0	0	0	0	0	0	0	504
Lowland Conifers	0	0	0	0	9	0	0	0	0	9
Mixed Upland Deciduous	11	0	0	0	0	0	0	0	0	11
Natural Mixed Pines	50	0	0	0	0	0	0	0	0	50
Planted Mixed Pines	0	35	0	0	0	0	0	0	0	35
Red Pine	268	0	0	0	262	0	0	0	0	531
Upland Mixed Forest	0	0	0	0	0	69	0	0	0	69
Total	834	35	0	0	271	104	0	0	0	1245

Proposed and Next Step Treatments by Method

	Harvest	Site Prep	Planting	Seeding	Burning	Pesticide	Monitoring	Other	Non-Forest Mgt.	Total Acres
Current	1245	0	54	0	0	62	0	0	0	1361
Next Step	0	766	795	0	354	1911	0	0	0	3825
Total	1245	766	849	0	354	1972	0	0	0	5186



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Proposed Treatments:

21	73010021-Cut	35.3	42140 - Planted Mixed Pine	9	96	141- 170	Harvest	Selection	429 - Mixed Upland Conifers	Planting Record	No
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Prescription Thin stand with a target residual of 90 BA/acre. Follow marking guidelines.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A naturally regenerated stand of mixed deciduous and conifers meeting minimum stocking standards

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027

34	73010034-Cut	7.7	42110 - Planted Red Pine	9	92	111- 140	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
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Prescription Thin stand with a target residual of 60 BA/acre. Follow marking guidelines.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027

36	73010036-Cut	69.1	4310 - Pine, Oak Mix	1	13	Immature	Harvest	Overstory Removal	4199 - Other Mixed Upland Deciduous	Planting Record	No
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Prescription Cut all trees 2 inches and greater in diameter. Follow standard island retention. Add oak wilt spec. Add trail protection spec.

Specs:

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A naturally regenerated stand of mixed deciduous meeting minimum stocking standards.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027



Standard

Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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46	73010046-Cut	35.3	4133 - Aspen, Mixed Pine	2	13	Immature	Harvest	Overstory Removal	413 - Aspen	Planting Record	No
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Prescription Cut all trees 2 inches and greater in diameter. No retention to promote regeneration of understory. Add Gladwin grouse spec. Add trail protection spec. Add oak wilt spec.

Next Step Monitoring, Natural Regen (Re-Inventory)

Treatments:

Acceptable A naturally regenerated stand of aspen with mixed deciduous meeting minimum stocking standards.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027

48	73010048-Cut	34.4	42110 - Planted Red Pine	7	83	1-50	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	No
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Prescription Cut all trees 2 inches and greater in diameter. No retention due to sparse canopy and regeneration. Add stump spec.

Specs:

Next Step Pesticide, Aerial - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Monitoring, Artificial Regen; Pesticide, Aerial -

Treatments: Release; SitePrep, Roller Chopping

Acceptable A planted red pine stand meeting minimum stocking standards.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027

54	73010054-Cut	39.6	42220 - Natural Jack Pine	6	65	81-110	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	No
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Prescription Cut all trees 2 inches and greater in diameter. Follow standard retention guidelines. Focus on boundary retention. Add trail protection spec.

Specs: Add stump spec.

Next Step Pesticide, Aerial - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Monitoring, Artificial Regen; Pesticide, Aerial -

Treatments: Release; SitePrep, Roller Chopping

Acceptable A planted red pine stand meeting minimum stocking standards.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027

58	73010058-Cut	74.2	42110 - Planted Red Pine	8	88	111-140	Harvest	Clearcut	4211 - Planted Red Pine	Planting Record	No
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Prescription Cut all trees 2 inches and greater in diameter. Follow standard island retention. Add trail protection spec. Add stump spec.

Specs:

Next Step Pesticide, Aerial - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Monitoring, Artificial Regen; SitePrep, Roller Chopping;

Treatments: Pesticide, Aerial - Release

Acceptable A planted red pine stand meeting minimum stocking standards.

Regen:

Other

Comment:

Site Condition:

Proposed Start Date: 10/01/2027



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
190 73010060-Monitor	4.8	42260 - Natural Pine, Mixed Deciduous	7	96	1-50	Monitoring	Monitoring - Regeneration	4122 - Oak, Pine	Cutting Record	No
<p><u>Prescription</u> Natural regeneration check <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> oak and pine in understory. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
77 73010077-Cut	23.1	42110 - Planted Red Pine	6	42	201+	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Systematic thin by removing every third row where possible and marking in rows where needed. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Add trail protection spec <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
78 73010078-Cut	34.0	42110 - Planted Red Pine	6	69	171-200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin stand to an approximate residual BA of 110. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
96 73010096-Cut	18.7	42110 - Planted Red Pine	9	66	171-200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin to approximately 110 BA <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
115 73010115-Cut	23.3	42260 - Natural Pine, Mixed Deciduous	5	82	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater in diameter. No retention to maximize regeneration. Add stump spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Pesticide, Drone - Site Prep; Planting, Unfurrowed; Monitoring, Artificial Regen; Monitoring, <u>Treatments:</u> Artificial Regen; Pesticide, Drone - Release</p> <p><u>Acceptable Regen:</u> A naturally regenerated stand of mixed deciduous with a conifer component meeting minimum stocking standards. If stand does not meet minimum stocking standards conduct site preparation and plant to fully stocked red pine.</p> <p><u>Other Comment:</u> Add trail protection spec</p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2027</p>										
127 73010127-Cut	5.3	42220 - Natural Jack Pine	5	85	51-80	Harvest	Clearcut	4319 - Mixed Upland Forest	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater in diameter. No retention due to stand size.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory); Pesticide, Drone - Release; Pesticide, Drone - Site Prep; Planting, Unfurrowed; Monitoring, <u>Treatments:</u> Artificial Regen; Monitoring, Artificial Regen</p> <p><u>Acceptable Regen:</u> A naturally regenerated stand of mixed conifers and oak meeting minimum stocking standards. If stand does not meet minimum stocking standards , conduct site prep and plant fully stocked red pine.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2027</p>										
136 73010136-Cut	11.1	42250 - Pine, Oak	9	85	81-110	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater in diameter. No retention due to stand size.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u></p> <p><u>Acceptable Regen:</u> A naturally regenerated stand of mixed deciduous and conifers meeting minimum stocking standards.</p> <p><u>Other Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2027</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
140 73010140-Cut	46.5	42110 - Planted Red Pine	9	91	171-200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin stand with a target residual of 120 BA/acre. Follow marking guidelines. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Add trail protection spec <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
204 73010204-Cut	10.9	4191 - Mixed Upland Deciduous with Conifer	9	96	111-140	Harvest	Clearcut	4199 - Other Mixed Upland Deciduous	Planting Record	No
<p><u>Prescription</u> Cut all trees 2 inches and greater in diameter. No retention due to stand size. Add Gladwin grouse spec. <u>Specs:</u> <u>Next Step</u> Monitoring, Natural Regen (Re-Inventory) <u>Treatments:</u> <u>Acceptable</u> A naturally regenerated stand of mixed deciduous meeting minimum stocking standards. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
245 73010245-Cut	44.2	42110 - Planted Red Pine	9	91	141-170	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin stand with a target residual of 120 BA/acre. Follow marking guidelines. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> Add trail protection spec. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
272 73010272-Cut	48.6	42110 - Planted Red Pine	9	91	141-170	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin stand with a target residual of 120 BA/acre. Follow marking guidelines. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
290 73010290-Cut	16.3	42110 - Planted Red Pine	9	66	171-200	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin stand to an average BA of 110 while removing dieback pockets. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
300 73010300-Cut	9.2	6128 - Lowland Coniferous, Mixed Deciduous	9	65	111-140	Harvest	Thinning	429 - Mixed Upland Conifers	Cutting Record	No
<p><u>Prescription</u> Mark stand to a residual BA of 60, favoring white pine as a seed source. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Mixed pine and oak <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
306 73010306-Cut	13.1	42110 - Planted Red Pine	6	70	201+	Harvest	Thinning	4319 - Mixed Upland Forest	Cutting Record	No
<p><u>Prescription</u> Remove approximately 1/3 of the basal area, which should leave a residual BA of 120-140. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										
331 73010331-Cut	9.9	42110 - Planted Red Pine	6	70	141-170	Harvest	Thinning	4211 - Planted Red Pine	Planting Record	No
<p><u>Prescription</u> Thin to an average residual BA of 110. <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2027</p>										



S t a n d	Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
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Approved Treatments:

3	73010003-Cut	15.5	42250 - Pine, Oak	5	78	51-80	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clearcut with retention. Then replant with jack pine and red pine. Keep the retention in pockets and between 3 and 4%. It should be cut as part of a KW block 121 that is scheduled to be planted in 2019.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>											
7	73010005-Cut	10.1	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clearcut with retention. Then replant with jack pine and red pine. Keep the retention in pockets and between 3 and 4%. It is as part of a KW block 121 that is scheduled to be planted in 2019.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Planting, KW Initial Plant; SitePrep, Trenching; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>											
7	73010007-Cut	26.5	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut with retention. The retention should be kept in pocket not to exceed 5% by area. This stand is to be cut with</p> <p><u>Specs:</u> KW Block 121 is located in this compartment to meet the KW management plan the KW related treatments will have</p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>											

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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
57 73010057-Monitor	19.8	42111 - Planted Red Pine, Mixed Deciduous	0	2	Immature	Monitoring	Monitoring - Regeneration	42111 - Planted Red Pine, Mixed Deciduous		No
<u>Prescription</u> <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> Interplanted red pine mixed with oak, aspen, maple, and natural pines. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026										
226 73010226-Cut	25.2	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. So clearcut the stand and plant for KW. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021										
229 73010229-Cut	60.1	42210 - Natural Red Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. So clearcut the stand and plant for KW. When this stand is set up add the trail protection spec. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021										
231 73010231-Cut	16.2	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
232 73010232-Cut	20.8	42210 - Natural Red Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. so clear cut the stand and plant for KW. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021</p>										
234 73010234-Cut	36.8	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Cutting Record	No
<p><u>Prescription</u> Clearcut the stand for KW. It is part of a KW block 121 that is scheduled to be planted in 2019. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021</p>										
235 73010235-Cut	39.3	42210 - Natural Red Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. so harvest as a clearcut and plant for KW. When this stand is set up <u>Specs:</u> add the trail protection spec. <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable. <u>Regen:</u> <u>Other</u> <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2021</p>										
238 73010238-Cut	83.6	42120 - Planted Jack Pine	6	28	51-80	Harvest	Clearcut	4222 - Natural Jack Pine	Planting Record	No
<p><u>Prescription</u> Cut all species 1" and greater in diameter. No retention to maximize Kirtland's Warbler habitat. <u>Specs:</u> <u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen <u>Treatments:</u> <u>Acceptable</u> A naturally regenerated stand of jack pine meeting minimum stocking requirements for Kirtland's Warbler habitat. Site prep and plant jack pine if regeneration does not meet minimum stocking <u>Regen:</u> <u>Other</u> Market stand for Biomass harvest based on age and average DBH. <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2024</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
240 73010240-Cut	39.6	42210 - Natural Red Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> It is part of a KW block 121 that is scheduled to be planted in 2019. So clearcut the stand and plant for KW. When this stand is set up add the trail protection spec.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
242 73010242-Cut	5.3	42220 - Natural Jack Pine	6	69	81-110	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> KW Block 121 is located in this compartment to meet the KW management plan the KW related treatments will have out of year of entry start date. The Start date for timber prep will be 10/1/2021, Trenching in 2025 and Planting in 2026. When this stand is s</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
243 73010243-Cut	62.2	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut and plant for KW. This stand is part of block 121 and is scheduled to be planted in 2019. Within 5 chains of private line leave all red pine and do not replant with jack pine. Maintain area in an sparse condition to act a</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
247 73010247-Cut	132.7	42220 - Natural Jack Pine	0	3	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut with retention. The retention should be is pockets but not exceed 3% by area. It will need to be planted to jack pine. The north half of the stand is part of KW block 121.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
248 73010248-Cut	17.8	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4222 - Natural Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut and plant for KW. It is part of a KW block 121 that is scheduled to be planted in 2019.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
249 73010249-Cut	26.1	42220 - Natural Jack Pine	0	2	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut and plant for KW. This stand is part of block 121 and is scheduled to be planted in 2019. Within 5 chains of private line leave all red pine and do not replant with jack pine. Maintain area in an sparse condition to act a</p> <p><u>Specs:</u></p> <p><u>Next Step</u> SitePrep, Trenching; Planting, KW Initial Plant; Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> 75% planted jack pine mixed with 25% planted red pine. some oak is acceptable.</p> <p><u>Regen:</u></p> <p><u>Other</u></p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
254 73010254-Cut	22.3	42220 - Natural Jack Pine	0	3	Immature	Harvest	Clearcut	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u> Harvest the stand as a clear cut with retention. The retentions should be in islands and should not exceed 3% of the area.</p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Natural Regen (Re-Inventory)</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> stand should regenerate to mix of oak and pine</p> <p><u>Regen:</u></p> <p><u>Other</u> if stand does not regenerate interplant with red pine.</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2021</p>										
256 73010256-Plant	24.2	42121 - Planted Jack Pine, Mixed Deciduous	0	1	Immature	Planting	Planting (tree species)	4212 - Planted Jack Pine	Planting Record	No
<p><u>Prescription</u></p> <p><u>Specs:</u></p> <p><u>Next Step</u> Monitoring, Artificial Regen; Monitoring, Artificial Regen</p> <p><u>Treatments:</u></p> <p><u>Acceptable</u> A planted stand of jack pine meeting minimum stocking requirements for Kirtland's Warbler habitat.</p> <p><u>Regen:</u></p> <p><u>Other</u> Percent to Treat = 100%</p> <p><u>Comment:</u></p> <p><u>Site Condition:</u></p> <p><u>Proposed Start Date:</u> 10/01/2026</p>										



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Treatment Name	Acres	Stand CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Age Structure	Habitat Cut
279 73010279-Plant	30.2	4211 - Planted Red Pine	0	4	Immature	Planting		4211 - Planted Red Pine		No
<p><u>Prescription</u> Plant with red pine <u>Specs:</u> <u>Next Step</u> Monitoring, Artificial Regen; Monitoring, Artificial Regen (3yr) <u>Treatments:</u> <u>Acceptable</u> Fully stocked red pine plantation. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026</p>										
307 73010307-Monitor	37.2	4211 - Planted Red Pine	0	2	Immature	Monitoring	Monitoring - Regeneration	4211 - Planted Red Pine		No
<p><u>Prescription</u> <u>Specs:</u> <u>Next Step</u> <u>Treatments:</u> <u>Acceptable</u> The stand should come back as a mixture of oaks and red pines with some jack pines, maples and white pines. <u>Regen:</u> <u>Other</u> Percent to Treat = 100% <u>Comment:</u> <u>Site Condition:</u> <u>Proposed Start Date:</u> 10/01/2026</p>										

Total Treatment 1366.1
Acreage Proposed:

Report 4 – Site Conditions



Gladwin Mgt. Unit

Compartment: 10

Colton Behrmann: Examiner

Year of Entry: 2028

Availability for Management

Total Acres	Acres Available	Acres With Condition	Acres Not Available
472	449	13	10

Dominant Site Conditions

Total Acres	Acres Available	Acres With Condition	Acres Not Available	Dominant Site Condition	Dominant Site Conditions											
					2B	5B	5C	2F	2G	2H	3B	3D	3G	3J	5E	
472	449	13	10	Aspen			13	10								
15	15	0	0	Bog												
7	0	0	7	Cedar					7							
54	54	0	0	Herbaceous Openland								0				
1818	1776	7	35	Jack Pine			7	10								25
17	17	0	0	Low-Density Trees												
9	9	0	0	Lowland Aspen/Balsam Poplar												
277	37	0	240	Lowland Conifers					203							38
346	2	0	345	Lowland Deciduous					105							239
186	22	0	165	Lowland Mixed Forest					149							16
233	233	0	0	Lowland Shrub												
54	54	0	0	Marsh												
406	361	36	10	Mixed Upland Deciduous		36										10
385	234	15	136	Natural Mixed Pines	15							44	81	11		
142	137	5	0	Oak		5										
311	288	0	23	Planted Mixed Pines							10	9				5
1407	1376	19	11	Red Pine		19				7	4					
9	0	9	0	Upland Conifers			9									
550	533	0	17	Upland Mixed Forest							7					10
3	3	0	0	Upland Shrub												
12	12	0	0	Urban												
151	147	0	5	Water											5	
75	75	0	0	White Pine												
6,939	5,832	104	1,003	Total Forested Acres	15	60	29	10	474	7	21	53	81	318	40	
	84%	1%	14%	Relative Percent												

*Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

Site No.	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
1	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions



Gladwin Mgt. Unit

Colton Behrmann: Examiner

Compartment: 10

Year of Entry: 2028

2	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	13	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Hold stand until adjacent oak stands on west and east are ready for commercial harvest.							
3	Unavailable	3D: Recreational/scenic values	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
4	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	113	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
5	Unavailable	3D: Recreational/scenic values	44	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Stand was left as a buffer for Leota.							
6	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
7	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	85	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028



8	Available	5B: Maintain for regeneration purposes	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
10	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	61	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
11	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	43	Unspecified	Unspecified	Unspecified	Unspecified
Comments: There is a drainage that runs along the west side of the stand which comes our of stand 14.							
14	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	4	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
15	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	22	2A: Adjacent landowner denied access	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified
Comments:							
16	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions



Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028

17	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	2	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
19	Available	5B: Maintain for regeneration purposes	19	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
21	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
22	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	9	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
24	Unavailable	2F: Too steep	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments: This stand slopes steeply to Haskel Lake with no area to turn equipment around.							
26	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028



28	Unavailable	3B: Threatened, endangered, and special concern species	21	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
33	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
37	Unavailable	3G: Other influence zones - See comments	81	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Parcel ownership is in question.							
38	Unavailable	5E: Long-Term Retention	5	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
39	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
41	Available	5B: Maintain for regeneration purposes	36	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions



Gladwin Mgt. Unit

Colton Behrmann: Examiner

Compartment: 10

Year of Entry: 2028

42	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
44	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	50	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
47	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	25	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
49	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	7	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
50	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	47	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions



Gladwin Mgt. Unit

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Compartment: 10

Year of Entry: 2028

56	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	46	3J: Water quality/BMPs (stream, river, or lake)	Unspecified	Unspecified	Unspecified
Comments:							
58	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	86	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
64	Unavailable	5E: Long-Term Retention	2	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
65	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
66	Unavailable	5E: Long-Term Retention	24	Unspecified	Unspecified	Unspecified	Unspecified
Comments: Jack pine skips that have some red pine and oak in them.							
67	Unavailable	5E: Long-Term Retention	10	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
68	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028



72	Unavailable	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
73	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	12	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
74	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	15	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
76	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	49	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
77	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	12	2G: Too wet (sensitive soils, does not include access issues)	2A: Adjacent landowner denied access	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028



80	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	13	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
81	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	27	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
82	Unavailable	3J: Water quality/BMPs (stream, river, or lake)	1	2G: Too wet (sensitive soils, does not include access issues)	Unspecified	Unspecified	Unspecified
Comments:							
83	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	6	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
84	Available	2B: Unknown if access through adjacent landowner(s) is possible	15	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Report 4 – Site Conditions

Gladwin Mgt. Unit
Colton Behrmann: Examiner

Compartment: 10
Year of Entry: 2028



85	Unavailable	2G: Too wet (sensitive soils, does not include access issues)	59	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
86	Unavailable	5E: Long-Term Retention	1	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
87	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
88	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
89	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							
90	Unavailable	5E: Long-Term Retention	0	Unspecified	Unspecified	Unspecified	Unspecified
Comments:							

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
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Comments



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
1	4122 - Oak, Pine	Poletimber Medium	4.4	42	81-110	N/A	The stand was final harvested to 4" DBH in 1984. The aspen clones are in patches. The oak regeneration is evenly distributed. There are also pockets of pine and spruce. The overall crown closure is around 60%. There are several areas where the stem density is very low. In these open areas oak, jack pine, and cherry are seeding in.																																																			
		<table border="1"> <thead> <tr> <th>Canopy Species</th> <th>% Cover</th> <th>Size Class</th> <th>DBH</th> <th>Age</th> </tr> </thead> <tbody> <tr> <td>Northern Pin Oak</td> <td>60</td> <td>Pole/Log</td> <td>9</td> <td>42</td> </tr> <tr> <td>Black Cherry</td> <td>5</td> <td>Pole</td> <td>6</td> <td></td> </tr> <tr> <td>Jack Pine</td> <td>25</td> <td>Pole</td> <td>7</td> <td></td> </tr> <tr> <td>White Pine</td> <td>10</td> <td>Log/Pole</td> <td>11</td> <td></td> </tr> </tbody> </table>	Canopy Species	% Cover	Size Class	DBH	Age	Northern Pin Oak	60	Pole/Log	9	42	Black Cherry	5	Pole	6		Jack Pine	25	Pole	7		White Pine	10	Log/Pole	11				<table border="1"> <thead> <tr> <th>Sub-Canopy Species</th> <th>Density</th> <th>Avg. Height</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Sweet Fern</td> <td>Medium</td> <td>< 5 feet</td> <td>< 5 feet</td> </tr> <tr> <td>Northern Pin Oak</td> <td>Medium</td> <td>5 - 10 feet</td> <td>5 - 10 feet</td> </tr> <tr> <td>Deciduous Shrubs</td> <td>Medium</td> <td>5 - 10 feet</td> <td>5 - 10 feet</td> </tr> </tbody> </table>	Sub-Canopy Species	Density	Avg. Height	Size	Sweet Fern	Medium	< 5 feet	< 5 feet	Northern Pin Oak	Medium	5 - 10 feet	5 - 10 feet	Deciduous Shrubs	Medium	5 - 10 feet	5 - 10 feet												
Canopy Species	% Cover	Size Class	DBH	Age																																																						
Northern Pin Oak	60	Pole/Log	9	42																																																						
Black Cherry	5	Pole	6																																																							
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Sub-Canopy Species	Density	Avg. Height	Size																																																							
Sweet Fern	Medium	< 5 feet	< 5 feet																																																							
Northern Pin Oak	Medium	5 - 10 feet	5 - 10 feet																																																							
Deciduous Shrubs	Medium	5 - 10 feet	5 - 10 feet																																																							
2	320 - Upland Shrub	None	1.7			No	This is an area of shrubs. The center portion of the stand looks to be wet but much of it is uplands.																																																			
3	42250 - Pine, Oak	Poletimber Medium	20.4	78	51-80	N/A	The stand is a new acquisition. It is a mixture of jack pine and oak. The jack pine is declining. This has created numerous crown gaps. The understory is variable going from non-stocked to well stocked.																																																			
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4	629 - Mixed non-forested Wetland	None	20.5			No	This stand is part of a larger lowland complex. The area is mainly water and marsh grasses with an island of jack pine. In addition the perimeter is heavy to lowland shrubs.																																																			
6	6113 - Lowland Maple	Sawtimber Well	21.8	104	111-140	N/A	S. Nyhoff 2016- The stand is undulating. It is on the flood plain of the Muskegon River and has some wet areas including a couple of vernal ponds. Many of the wet areas are the old river channels of the Muskegon River. The ash has heavy EAB. However, some of the ash is still alive.																																																			
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7	42220 - Natural Jack Pine	Unspecified	40.9	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", will be trenched in 2026 & planted in 2027.																																																			
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8	6229 - Mixed Lowland Shrub	None	2.9			No	This is a swale that is very wet. The stand was harvested with stand 419 and it was heavily rutted. Conifers are starting to seed in. The main species are tamarack, balsam fir and white pine.																																																			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																															
9	42220 - Natural Jack Pine	Poletimber Medium	3.6	28	51-80	N/A	This stand was harvested in 1995. The stand was not trenched and planted with jack pine the soils are too wet. This area is mainly jack pine seeding in over leather leaf and is continuing to fill in.																																																															
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10	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	14.2	30	51-80	N/A	Stand harvested in 1997 under Muskegon River Aspen 73-042-93. When it was harvested the white pine was retained. There are several low wet areas in the stand which are the old river channels. Much of this stand is on a slightly higher terrace of the Muskegon River Flood Plain.																																																															
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11	6113 - Lowland Maple	Sawtimber Medium	22.7	96	51-80	N/A	S. Nyhoff 2016- The stand is heavily impacted by pre-inventory stand 14, which is an oxbow that beaver have dammed to raise the water level. The stand does have some areas that are higher having maple and oak. However, much of the stand is ash and has standing water in it much of the year. EAB has reduced the ash significantly and opened up the crowns.																																																															
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12	6127 - Lowland Pine	Poletimber Medium	19.9	99	81-110	N/A	The stand is variable going from areas of thick white pine sapling poles to areas of extra large red pine sawlogs with a heavy white pine understory. The terrain is undulating and goes from dry to very wet. Many of the wet areas are old river channels. This stand is on one of the lower terraces of the Muskegon River. Overall the stand is lowland.																																																															
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13	6119 - Mixed Lowland Deciduous Forest	Sawtimber Medium	54.1	96	81-110	N/A	S. Nyhoff 2016- The stand is a matrix of uplands and lowlands with the lowlands being about 80%. It is also on the flood plain of the Muskegon River. There are inclusions of lowland shrubs. These inclusions are in the old river channels. In addition, there is some beaver activity along the river removing a significant amount of the aspen regeneration.																																																															
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14	500 - Water	None	12.7			No	This is an oxbow of the Muskegon River.																																																															



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15	42290 - Natural Mixed Pine	Poletimber Medium	17.4	69	81-110	N/A	The stand is on one of the higher terraces in the flood plain of the Muskegon River. It is a mixture of uplands and lowlands with the uplands being the majority. There are distinct areas in the stand that are closer to lowland shrub. These areas are located in some of the old oxbows. The density in the stand is variable. There is also significant mortality in the overstory oak and jack pine. The upland portions of the stand have a higher density of conifers. In contrast, the lowlands areas are heavy to hardwood. The ash in the stand has EAB. However, there are some trees that are still alive. The edges of the stand have drainages and are very wet.																																																	
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17	6139 - Mixed Lowland Forest	Sawtimber Medium	27.3	96	51-80	N/A	Nyhoff 2016- The stand is a matrix of uplands and lowlands with the lowlands being about 60%. Many of the lowland areas are old oxbows. Some of the lowlands are closer to being lowland shrub types then forested.																																																	
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19	3102 - Grass	None	0.6			No	This is an area that looks to be used as a camping area. The opening starts on state land but continues onto private land.																																																	
20	4131 - Aspen, Oak	Poletimber Well	8.0	35	81-110	N/A	The stand is moving toward oak and aspen poles. It has inclusions of lowland shrubs. The shrub types are in the old oxbows.																																																	
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21	42140 - Planted Mixed Pine	Sawtimber Well	35.3	96	141-170	N/A	The red pine is heavy in the west end of the stand and white pine is heavy in the east end and along the north side. The stand has several vernal ponds in the eastern portion of the stand. The jack pine has decline a lot since the last YO. In addition there is now some decline in the oak. This stand is out of the flood plain of the Muskegon River.																																																	
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22	500 - Water	None	12.5			No	This is a portion of the Muskegon River																																																	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																							
23	500 - Water	None	1.8			No	This stand has move from lowland shrubs to water because of beaver activity.																																							
24	6229 - Mixed Lowland Shrub	None	4.0			No	This is a swale that is mainly tag alder and dogwood which is thick. There is also some scattered balsam fir. The swale is being fed by springs making it very wet.																																							
25	6127 - Lowland Pine	Poletimber Medium	5.6	35	81-110	N/A	The stand is variable going from well stocked swamp hardwoods to lowland shrubs. Much of the lowland shrubs are located in the old oxbows of the Muskegon River. This leads to a terrain that is made up of ridges and swales. The swales are very wet.																																							
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26	6130 - Fir, Aspen, Maple	Poletimber Poor	15.2	96	81-110	N/A	Nyhoff 2016- The stand is moving toward poles. It has inclusions of lowland shrubs. The shrub types are in the old oxbow. In addition, the stand has some beaver activity, especially closer to the Muskegon River. It has some active springs so the site is very wet. There is also a thick brush layer in the stand.																																							
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27	4310 - Pine, Oak Mix	Sapling Poor	52.6	15	Immature	N/A	This stand has some scattered natural regeneration of oak and pine. It was harvested in 2009 under Thornapple Trail RPP 73-016-08. Then it was planted to red pine in 2011 with FTP #C73-846.																																							
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28	6127 - Lowland Pine	Sawtimber Medium	9.3	83	111-140	N/A	This is a mature white pine stand with many oversized log trees. Some of the red and white pines have more than 8 logs in them. There is a thick layer of advanced regeneration. The regeneration is white pine and balsam fir. The stand is in a depression and has drainages running along both sides. The crown closure ranges from 50-80% and the density runs from 50-160 sq. ft.																																							
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29	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	22.7	32	1-50	N/A	This stand was harvested in 1993 and planted to jack pine. The stand is mainly jack pine with some oak, cherry and aspen. The aspen is in small scattered clones. The stand is fairly open and the jack pine is squat because it is open grown. The terrain is mainly flat and upland.																																													
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30	42110 - Planted Red Pine	Sapling Well	30.0	11	Immature	N/A	The stand was planted to red pine in 2015. Because of snow the survival of the planted seedlings is unknown. There is some natural regeneration of oak that is evenly scattered and mainly sprout origin. Along the west side and in the south leg of the stand some red pines were marked to be retained.																																													
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31	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	12.9	104	51-80	N/A	The stand goes down over a steep slope then onto the Muskegon River Floodplain. There is a large wet area along the base of the slope. There is a significant understory of conifer, especially on the land paralleling the river which is slightly higher than the rest of the stand. The slope is heavy to birch, aspen, white pine, red pine with a thick understory of balsam fir. The ash on the flood plain is dead. The maple and fir is still alive. The crown closure on the slope is 100%. On the flood plain the crown closure is 35%.																																													
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32	6229 - Mixed Lowland Shrub	None	1.3			No	Nyhoff 2016- This is a swale that is mainly tag alder and dogwood with some scattered trees. The site is very wet.																																													
33	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	5.8	32	1-50	N/A	This stand was harvested in 1993 and planted to jack pine. The stand is now mainly oak and jack pine with very little aspen or white pine. The terrain is generally flat and dry. Much of the stand has a good density. However, there are several openings in the stand. The crown closure is closer to 75%. Recommend to manage stand with adjacent planted pine due to size.																																													
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34	42110 - Planted Red Pine	Sawtimber Well	7.7	92	111-140	N/A	This area was heavier to red pine. The jack pines and oaks were harvested in 2007. The stand looks good and it is still very park like. At the current time there is very little regeneration present. The overstory oak in the stand is dead, for the most part.																																													
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35	4130 - Aspen	Poletimber Well	12.9	35	81-110	N/A	The stand is a matrix of uplands and lowlands with the lowlands being about 20%. It is also on the flood plain of the Muskegon River. There are inclusions of lowland shrubs.																																																															
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36	4310 - Pine, Oak Mix	Sapling Poor	69.1	13	Immature	N/A	The stand was seed tree harvested in August of 2013. The slash load was low. The south east corner of the stand is thick with cherry and aspen. The terrain is mainly flat but get hillier toward the north edge. Natural regeneration survey was done June 2018. The stand density goes from a crown closure of 10 to 75%. The residual red pine is evenly scattered and looks healthy. The red pine regeneration is in pockets and the oak is variable but more consistent throughout the stand. There is some aspen regeneration, but it is concentrated along stands 43 and 46. There is heavy sedge competition in the stand.																																																															
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37	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Medium	21.5	18	Immature	N/A	This stand was harvested in 2007 under Long Lake Harvest 73-Q21-01 and then planted to jack pine. This stand has regenerated naturally with some oak, red pine, white pine, and jack pine. The stocking was supplemented by the trenching and planting of red pine. This brought the stand up to full stocking. The planted red pines have good level of survival.																																																															
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38	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	7.2	87	81-110	N/A	The stand is undulating to hilly. It is on the middle tier coming out of the Muskegon River flood plain with some lowland pockets in the southern end.																																																															
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39	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	35.4	18	Immature	N/A	The stand was clear cut in 2007 and planted to jack pine. It has some natural regeneration of oak and cherry. The stand is now fully stocked and coming along well. There is some minor problem with weevil.																																																															
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40	42290 - Natural Mixed Pine	Poletimber Well	39.2	50	51-80	N/A	The stand is undulating to rolling. It was harvested in 2006. The harvest removed all the oak, jack and white pine to 4" DBH. However, all red pines were retained. The regeneration is good and mainly jack pine, white pine, and oak.																																										
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41	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	13.8	11	Immature	N/A	The stand was clear cut in August of 2013. Overall the stand is upland and has a fairly even mix of oak and pine. The stand was planted with jack pine in the spring of 2015 at a stocking rate of 1031 trees/ac. This was done with FTP #C73-943. Regen was check 6/8/16 at that time there was 858 stems/ac of jack pine, 567 stems/ac of oak, 1167 stems/ac of aspen and 200 stems/ac of cherry.																																										
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42	42140 - Planted Mixed Pine	Poletimber Well	17.4	70	111-140	N/A	There is some mortality in the jack pine. Because of the mortality there is a lot of down woody material. The stand itself is variable in species mix, density, and size class. The overall crown closure is closer to 75%.																																										
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44	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	13.2	18	Immature	N/A	This stand was harvested in 2007 under Long Lake Harvest 73-021-01 and planted to jack pine. There is a good mixture of natural regen as well.																																										
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																											
45	42111 - Planted Red Pine, Mixed Deciduous	Sapling Poor	37.7	19	Immature	N/A	The stand was clear cut in 2007 and planted to red pine. The stand has some natural regeneration of oak, aspen, cherry, and jack pine. The stand is now fully stocked and coming along well. There are some residual jack pines and white pines in the stand. These were left along the easement for the gas pipeline. 12/10/2021: Plots taken to determine stem density for precommercial hand thinning treatments. Data shows 850 Stems/acre of competition. Stand is now 15' tall and ranging 3-5" in DBH. The red pine is close to the same height as a majority of the competition. TSI- Hand mechanical thinning dropped on 05/17/2022. Stand has been approved to accept current cover type.																																											
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46	4133 - Aspen, Mixed Pine	Sapling Medium	35.3	13	Immature	N/A	The stand had a salvage harvest done in 1994. The harvest left the red and white pines. The sale boundary did not include the entire stand. Later the stand was seed tree harvested which was completed in August of 2013. This left a medium slash load. Natural regeneration survey was done June 2018. The crown closure is closer to 75% but goes from 20 to 100%. The sedge competition is less than in stand 36. The ground cover is heavy to blueberry. The aspen density increases going from west to east.																																											
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48	42110 - Planted Red Pine	Sawtimber Poor	34.4	83	1-50	N/A	Stand thinned to 40 BA/acre under Blueberry Ridge 73-008-18. The overstory jack pines and oaks are declining. Their BA is around 40 Sq Ft. The jack pine density is higher at the south end and white pine at the north end of the stand. The red pine and oak are fairly evenly distributed.																																											
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49	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Medium	6.7	12	1-50	N/A	This stand looks like it was likely a plantation, but it is hard to tell. The stand has little to no understory in the areas with log sized red pine. The central portion of the stand appears to have been interplanted with red pine and they are growing alongside heavy oak regeneration.																																											
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50	42110 - Planted Red Pine	Sawtimber Well	9.8	61	111-140	N/A	Stand thinned in 1995 under Leota Pine. Stand also thinned to 90 BA/acre under Blueberry Ridge 73-008-18. This stand looks like it might have been a plantation, but it is hard to tell. The rows are not straight. The canopy has variable gaps due to thinning. The stand has a lot of oak in the understory. The central portion of the stand has some regeneration. Most of the overstory oak in the stand is now dead.																																											
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51	3302 - Low Density Conifer Trees	None	2.6			No	The stand is filling in with Jack pine along the edges.																																											



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																						
52	6229 - Mixed Lowland Shrub	None	5.3			No	This is the flood plain of the Floodwood Creek. It is heavy to tag alder and marsh grass.																																						
53	6229 - Mixed Lowland Shrub	None	7.1			No																																							
54	42220 - Natural Jack Pine	Poletimber Well	39.6	65	81-110	N/A	The jack pine in the stand is heaviest through the center of the stand going from SW to NE. Red pine is more common along the east side and south boundary. The hardwoods increase in the NW corner. There are several aspen clones scattered in the stand. The crown closure is around 75%.																																						
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55	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	151.2	21	Immature	N/A	The stand was final harvested in 1995, than it was burned. It was planted in 2005. It has regenerated as a mix of planted pine, hybrid oak, and choke cherry. There is some scattered natural red and jack pine. There are scattered aspen clones and oak sprouts in the southeast portion of the stand.																																						
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56	4310 - Pine, Oak Mix	Poletimber Medium	34.5	42	81-110	N/A	The stand was final harvested to 4" DBH in 1984 under contract 73-044-83. There is significant cherry present so some areas appear to be more of an upland brush type. Openings are seeding in with oak and mixed conifers.																																						
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57	42111 - Planted Red Pine, Mixed Deciduous	Unspecified	20.6	2	Immature		Year 1 artificial regen survey: 764 TPA of red pine, 8% mortality & 39% FTG. "No spray. Full competition in both saplings and herbaceous layers. RP will not survive as they are fully shaded and outcompeted already."Stand planted in May of 2025. 795 TPA of red pine. Stand trenched in April 2023. Stand cut and chipped under Blueberry ridge 73-008-18.The overstory is declining, especially in the oaks and jack pines. There are some larger canopy gaps from the dead oak coming down. The gaps are filling in with oak, white pine, and cherry.																																						
58	42110 - Planted Red Pine	Sawtimber Medium	74.2	88	111-140	N/A	The stand had the hardwoods and jack pines harvested in 2006. The oak has regenerated well. The open areas have some red and jack pine regeneration. In addition there are some scattered aspen clones in the stand.																																						
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59	4310 - Pine, Oak Mix	Sapling Medium	14.8	25	1-50	N/A	The stand was visited in winter of 2025. The conditions remain similar to the previous inventory with most species increasing in average diameters. The density and species composition is variable throughout the stand. The stand was harvested in 2006 to 4" DBH on all species except red pine. The regeneration is coming in fairly well; in time it will be a fully stocked stand. The aspen is concentrated in a clone in the north end. The oak and jack pine regeneration is now tall enough to be established. The overall crown closure is around 70%.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Bigtooth Aspen		10	Sapling	3		Blueberry/Bilberry/Cranberry		Medium	< 5 feet	< 5 feet	
Northern Pin Oak		28	Sapling	3	25	Sweet Fern		Medium	< 5 feet	< 5 feet	
Red Pine		24	Log/Pole	14	56						
Jack Pine		25	Sapling	3							
White Oak		3	Sapling	2							
White Pine		5	Pole/Sapling	5							
Pin Cherry		5	Sapling	2							
60	42141 - Planted Mixed Pine, Mixed Deciduous	Poletimber Medium	14.4	97	111-140	N/A	The overstory oaks and jack pine are declining and falling out. Because of the declining overstory there is a lot of downed wood in the stand. Regeneration is sparse even in the open areas of the stand.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern Pin Oak		15	Log/Pole	11		White Pine		Low	Variable	Variable	
Bigtooth Aspen		5	Pole	7		Oak (spp.)		Low	10 - 20 feet	10 - 20 feet	
Red Pine		45	Log	14	97	Red Pine		Low	10 - 20 feet	10 - 20 feet	
Jack Pine		20	Pole/Log	8							
61	42290 - Natural Mixed Pine	Poletimber Medium	4.8	105	81-110	N/A	This stand was left as a buffer strip to screen the final harvest to the east. Within the buffer the jack pine was harvested in 1995 under Forest Road Jack Pine 73-041-93. The over story oak is declining. However, oak regeneration is coming up under it. Leave the stand, for now, and let the stand to the east grow.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		40	Log/Pole	12	105	Jack Pine		Medium	Variable	Variable	
Jack Pine		35	Pole/Log	9		Black/Red (Hybrid) Oak		High	5 - 10 feet	5 - 10 feet	
Black/Red (Hybrid) Oak		15	Log	14		White Pine		Low	Variable	Variable	
62	4122 - Oak, Pine	Poletimber Medium	7.9	31	51-80	N/A	The stand was harvested retaining the red pine in 1994. The oak, jack pine and cherry are regenerating.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern Pin Oak		60	Pole/Sapling	7	31	Sweet Fern		Medium	< 5 feet	< 5 feet	
Red Pine		15	Log	13							
Jack Pine		19	Pole/Sapling	5							
Pin Cherry		5	Pole	5							
63	42111 - Planted Red Pine, Mixed Deciduous	Sapling Medium	23.1	15	Immature	N/A	The stand was clear cut in 2009 under Thornapple Trail RPP 73-016-08. The oak regeneration is good and it is uniformly scattered. The stand was planted to red pine in 2011 with FTP #C73-848. Stand received a TSI treatment in August 2022. Pre-treatment plots showed 1500 TPA of oak & cherry. Heavy competition was knocked down to release planted red pine.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Black/Red (Hybrid) Oak		15	Sapling	1	17						
Red Pine		60	Sapling	1	15						
White Oak		5	Sapling	1							
Jack Pine		5	Sapling	4							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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64 42111 - Planted Red Pine, Mixed Deciduous Sapling Well 62.2 21 Immature N/A The stand was clear cut in the summer of 2014. Then it was trenched in the fall of 2014, and planted to red pine in the spring of 2015.

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	10	Sapling	1	
Black Cherry	5	Sapling	1	
Black/Red (Hybrid) Oak	15	Sapling	2	
Red Pine	70	Sapling	1	21

65 42140 - Planted Mixed Pine Sapling Medium 148.7 11 Immature N/A The stand was harvested in April of 2014, trenched in fall of 2014 and planted spring 2015. The regen was checked 6/4/16. 809 TPA of red pine, 1566 TPA of oak, and 446 TPA of cherry. Artificial regeneration survey conducted in April of 2026 during inventory due to missed yr 3 artificial regeneration survey. 682 TPA of red pine, 391 TPA of jack pine, 182 TPA of cherry & 34 TPA of oak. Expect oak to increase as stems are not all past browse height.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	30	Sapling	2		Northern Pin Oak	Medium	< 5 feet	< 5 feet
Black Cherry	14	Sapling	2		Red Pine	Low	< 5 feet	< 5 feet
Red Pine	53	Sapling	2	11	Pin Cherry	Low	< 5 feet	< 5 feet
Northern Pin Oak	3	Sapling	2					

66 4191 - Mixed Upland Deciduous with Conifer Sapling Poor 7.6 22 Immature N/A Stand was visited in winter of 2025. Conditions are similar to the previous inventory. Most trees have increased in average diameter. The stand is very variable in species composition. The stand is a series of 3 areas that were marked for salvage cuts. The cuts were set up in 2009 and 2010 removing all the oaks. The regeneration is coming along well. The retention is mainly jack pine and it is widely scattered.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	50	Sapling	2	22	Sweet Fern	Medium	< 5 feet	< 5 feet
White Oak	5	Sapling	1					
Jack Pine	25	Pole/Sapling	7					
Choke Cherry	5	Sapling	2					
Balsam Fir	5	Pole	5					
Red Pine	5	Log/Pole	10					

67 4310 - Pine, Oak Mix Poletimber Medium 15.9 30 51-80 N/A The stand was harvested as a clear cut in 1995 removing all species except the red pine less than 6" in DBH. It has since regenerated with some oak and jack pines. The residual red pine density is variable going from 20 to 60 BA.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	10	Pole	6		Common Lowbush Blueberry	Medium	< 5 feet	< 5 feet
Northern Pin Oak	20	Pole	6	30	Sweet Fern	Medium	< 5 feet	< 5 feet
Jack Pine	30	Pole	5	30				
Black Cherry	15	Pole	5					
White Oak	5	Pole	6					
Red Pine	20	Log/Pole	10	55				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																												
68	4125 - Black, N. Pin Oak	Sapling Well	7.4	20	1-50	N/A	The stand was harvested in 2006. The harvest removed all the dead oak, also jack pine was harvested to 4" DBH. The retention is declining, and much of it is on the ground. The larger oaks are declining and falling out. The regeneration in the stand is good.																																												
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69	4310 - Pine, Oak Mix	Sawtimber Medium	11.2	90	51-80	N/A	The overstory is declining, especially the oaks. There are areas where most of the overstory has come down. The stand is almost 2 separate stands. The portion west of the snowmobile trail has low regeneration and higher mortality with a crown closure closer to 75%. The portion of the stand east of the snowmobile trail has heavy regeneration and high mortality and the crown closure is closer to 50%.																																												
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70	4310 - Pine, Oak Mix	Sapling Medium	34.4	20	Immature	N/A	The stand was clear cut in 2006 and was interplanted to red pine. However, the natural jack pine and oak dominate the stand. There are pockets of jack pine that are heavily weevilled. The aspen regeneration is in 2 or 3 clones. The red pines appear to be a mixture of seed source and planted.																																												
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71	4310 - Pine, Oak Mix	Poletimber Medium	76.5	42	81-110	N/A	The stand was final harvested to 4" DBH in 1984 under contract 73-044-83. There is evidence of fires in the stand because of multiple plow lines. Much of the jack pine is open grown so it has poor form. The aspen in the stand is in pockets and more common in the northern portion. There are also significant gall problems on the jack pine.																																												
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72	42111 - Planted Red Pine, Mixed Deciduous	Sapling Poor	28.1	18	Immature	N/A	The stand was harvested as a clear cut in 2007 and planted to red pine. It has some natural regeneration of oak and cherry. The stand is now fully stocked and coming along well.																																												
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73	3102 - Grass	None	48.7			No	This stand is a long grassy stand that has a high pressure gas pipeline going along the east 1/2 of the stand. There is a two-track that is in the other 1/2 of the stand. There has been some attempt to curtail the use of the two-track but for the most part it has not been successful.																																												



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																							
74	42120 - Planted Jack Pine	Sapling Well	41.3	39	1-50	N/A	The stand was final harvested to 4" DBH in 1984. It was planted to jack pine without KW openings. Overall it appears to have less oak and cherry than the stand to the south. The stand is now starting to become a pole stand. There are pockets of high mortality but overall it is in good shape.																																							
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75	4310 - Pine, Oak Mix	Poletimber Medium	6.9	33	51-80	N/A	The stand has regenerated fairly well overall. However, the density is variable going from poorly to fully stocked. The aspen regeneration is heaviest in the east end of the stand. The regeneration of oak and jack pine is fairly evenly distributed throughout the rest of the stand. Much of the jack pine growing here has an open grown form.																																							
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76	500 - Water	None	4.2			No	This is the Muskegon River.																																							
77	42110 - Planted Red Pine	Poletimber Well	23.1	42	201+	N/A	The stand was harvested to 4" DBH in 1984. Then it was planted to red pine. There is some natural regeneration of oak and cherry that is scattered in the stand. There are also two large aspen clones. The stand is now 30+ years old and it has not had the first time row thinning done yet.																																							
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78	42110 - Planted Red Pine	Poletimber Well	34.4	69	171-200	N/A	The stand was thinned in 1995 and 2007.																																							
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79	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Poor	18.7	20	1-50	N/A	The stand was harvested to 4" DBH retaining all the red pine in 2006. It was interplanted with red pine on 4/26/2013; FTP number C73-769. There is also good natural oak regeneration scattered throughout the stand. In addition, there is a small L-type inclusion, but it is less than a half-acre in size. The red pine is coming along nicely and has not started self-pruning.																																							
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80	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	32.9	40	81-110	N/A	The stand was final harvested to 4" DBH in 1984. It was then planted to jack pine with KW openings. These openings have a significant amount of jack pine, oak and cherry seeding into them. However, they are still sparse. The stand is now converting into a pole stand.																																																															
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81	6229 - Mixed Lowland Shrub	None	5.9			No	This is down stream from the control structure for Floodwood Swamp Reservoir. It is an L-Type mixed with some swamp hardwoods.																																																															
82	4310 - Pine, Oak Mix	Poletimber Medium	16.5	30	51-80	N/A	This stand was harvested in 1995 removing all the jack pine. The oak regeneration in the stand is 4-plus feet tall. The residual overstory oaks are declining and falling down. The crown closure is getting close to 75% but it is not there yet. Jack pine is developing into the pole class.																																																															
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83	6113 - Lowland Maple	Sawtimber Medium	8.5	123		N/A	The stand is on the flood plain of the Muskegon River. Stand has converted to a lowland maple river bottom. The leaf off imagery shows very little conifer cover and wet soils. It is also land locked by private land.																																																															
84	42120 - Planted Jack Pine	Sapling Medium	26.8	20	Immature	N/A	The stand was final harvested in 2006 and planted with jack pine. The density is variable going from moderate to fully stocked. There are also volunteers of oak, jack pine, red pine and cherry scattered throughout the stand. The aspen regeneration is in 2 or 3 clones.																																																															
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85	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	14.9	22	51-80	N/A	Stand harvested 2" and up, under contract Snowmobile Jack Pine 73-010-04. The stand has jack pine in the draws, aspen clones along the road, and oak on the ridges. Some of the jack pine has been weevilled.																																																															
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86	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	175.1	20	Immature	N/A	The stand was harvested in 2003 and then planted with jack pine in 2005. It has regenerated as a mix of planted pine, hybrid oak, and choke cherry. There is some scattered natural regeneration of red and jack pine. The aspen clones are heaviest in the central portion of the stand. The oak regeneration is heaviest in the eastern portion of the stand.																																																			
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88	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	5.7	32	51-80	N/A	The stand was harvested in 1994 to 2" DBH under Long Lake Salvage 73-044-93. However, all the red and white pine was retained and they are in pockets. It is narrow along the lowland to the south. It is also variable in species composition and size.																																																			
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89	4131 - Aspen, Oak	Poletimber Well	28.2	42	81-110	N/A	The stand was harvested to 4" DBH in 1984 under contract 73-043-83. The aspen regeneration is in clones so it is patches. The oak regeneration is fairly evenly distributed. There are also pockets of pine and spruce regeneration. Currently the aspen is starting to thin naturally leaving a lot of down wood.																																																			
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90	42220 - Natural Jack Pine	Sapling Poor	2.9	22	Immature	N/A	The stand still looks sparse from the road. At that end it is more of an herbaceous opening. However, the open areas at the west end of the stand are starting to fill in with jack pine seedlings.																																																			
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91	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	14.4	32	1-50	N/A	Stand was visited again in winter of 2025. Stand conditions remain similar to the previous inventory. The aspen is moving into poles.																																																			
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																	
92	42220 - Natural Jack Pine	Poletimber Medium	7.0	68	51-80	N/A	There is a high mortality and stem breakage in the jack pine and high mortality in the oak. There are some large gaps created from the oak and jack pine falling out. There is a lot of down woody material making navigating the stand difficult. Oak regeneration is high. The density in the stand is variable going from 0 to 90 sq. ft.																																																	
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93	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	21.4	11	Immature	N/A	The stand was clear cut in the summer of 2014. Then it was trenched in the fall of 2014, and planted to red pine in the spring of 2015. Red pine and oak are doing very well.																																																	
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94	500 - Water	None	17.4			Yes	This is the Floodwood Swamp Reservoir. It is a mixture of open water and cattails.																																																	
95	6229 - Mixed Lowland Shrub	None	13.8			No	The stand was mainly ash at one time but now the trees are dead. It is now mainly tag alder and dogwood. There are some scattered cedars. However, the tops look to be thinning and they appear to be declining.																																																	
96	42110 - Planted Red Pine	Sawtimber Well	18.7	66	171-200	N/A	This pine plantation was thinned in 1995 and in 2007. There is very little understory at the current time. Regeneration is focused near the road and trail. The rest of the stand is very open. There are some smaller suppressed trees. Look at dieback pockets with Forest Health Forester.																																																	
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97	4125 - Black, N. Pin Oak	Poletimber Well	10.2	33	81-110	N/A	The stand is undulating and thick. It was harvested to 4" in diameter in 1993 under Prentis Creek Salvage 73-090-92. It is now fairly thick with oak regeneration and there is also a few aspen clones. Some of the aspen, oak, and red pine are residual trees from the harvest in 1993 and most are now pole size.																																																	
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98	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	12.3	21	Immature	N/A	The stand was final harvested in 2005 and planted to jack pine with KW openings. These openings now have a significant amount of cherry and oak seeding into them. The survival of the planted jack pine was moderate but there are a lot of volunteer jack pines and oaks between the rows.																																																																
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99	6130 - Fir, Aspen, Maple	Poletimber Poor	12.0	46	1-50	N/A	Stand visited in winter of 2025. Conditions are similar to the previous inventory. The stand is very wet. The ash is dead. There are portions of the stand that are more like lowland shrub types than anything else. The north edge transitions from lowlands to uplands. This transition area is where the white pine, balsam fir and oak are heaviest.																																																																
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100	4125 - Black, N. Pin Oak	Poletimber Well	17.4	33	81-110	N/A	The stand was harvested as a 4" final harvest in 1993 under Prentis Creek Salvage 73-089-92. The terrain is undulating. There are some planted Norway spruce, scots pine and some others in the stand.																																																																
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101	320 - Upland Shrub	None	1.7			No	This stand is where the Harrison DNR weather station is located. The area around the station was cleared out when the Otter Pines sale was harvested. There is a lot of blueberry and sweet fern on the site.																																																																
102	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	19.7	20	Immature	N/A	The stand was final harvested in 2005 and planted to jack pine. The stand also has a lot of volunteer oaks and a few aspen clones in it. The oaks and jack pines are fairly evenly distributed and they are approximately the same height																																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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103 4191 - Mixed Upland Deciduous with Conifer Poletimber Well 4.0 43 51-80 N/A

The overstory is mainly oak and mixed conifers. The oak is variable in size from sapling to log. The aspen in the stand is in the south end. It is in pockets. There are some wet pockets in the stand near the adjacent lowland.

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	20	Pole/Sapling	5	
Northern Pin Oak	50	Pole/Sap/Log	5	43
White Pine	5	Pole/Sapling	5	
Jack Pine	10	Pole	5	

104 429 - Mixed Upland Conifers Poletimber Medium 8.9 68 81-110 N/A

The overstory oaks and jack pines are declining. There is a significant amount of mortality and a lot of down trees. This makes the stand hard to navigate. The stem density goes from low to high. The overall crown closure is around 75%. The oak density of the stand increases going to the east.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	20	Log/Pole	10		Sweet Fern	Medium	< 5 feet	< 5 feet
Black/Red (Hybrid) Oak	25	Pole/Log	8		Blueberry/Bilberry/Cranberry	Medium	< 5 feet	< 5 feet
Jack Pine	25	Pole	8	68				
Balsam Fir	5	Pole/Sapling	6					
White Spruce	15	Pole	6					
White Pine	10	Pole/Sapling	5					

105 4310 - Pine, Oak Mix Poletimber Well 37.5 21 51-80 N/A

The stand was harvested in 2003 and then planted with jack pine in 2005. It has regenerated to a mix of planted pines, oaks, and cherry. There is also some scattered natural regeneration of red and jack pines. The aspen clones are heaviest in the central portion of the stand and the oak regeneration is heaviest in the eastern portion. The stand is currently moving into poles.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	10	Pole	5		Northern Pin Oak	Medium	5 - 10 feet	5 - 10 feet
Black/Red (Hybrid) Oak	40	Pole/Sapling	5					
Red Pine	7	Sapling/Pole	4					
Jack Pine	40	Pole/Sapling	5	21				
Black Cherry	3	Pole/Sapling	5					

106 42290 - Natural Mixed Pine Sawtimber Medium 4.8 46 1-50 N/A

This is a narrow stand along the Muskegon River flood plain and private land. The northwest portion of the stand slopes steeply into the flood plain of the river. There is a significant conifer on the bank, overlooking the flood plain. The canopy is very open in some areas leaving a low crown closure. The oak in the stand is declining.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	5	Log	14	84	White Pine	Low	10 - 20 feet	10 - 20 feet
White Oak	5	Log/Pole	10		Jack Pine	Low	10 - 20 feet	10 - 20 feet
Balsam Fir	10	Pole	6		Oak (spp.)	Medium	5 - 10 feet	5 - 10 feet
Bigtooth Aspen	5	Log	14		Balsam Fir	Low	10 - 20 feet	10 - 20 feet
White Pine	38	Log/Pole	12	46				
Jack Pine	37	Pole	8					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																			
107	4122 - Oak, Pine	Sapling Poor	22.5	20	1-50	N/A	The stand was harvested in 2006 by removing all the dead oak and jack pine to 4 inches DBH. It is regenerating well in the gaps. Large oak is dying and falling out.																																																			
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108	42220 - Natural Jack Pine	Poletimber Medium	20.7	55	51-80	N/A	Stand visited in winter of 2025. Stand conditions are similar to the previous inventory. Oak and jack pine is still dying and falling out.																																																			
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109	500 - Water	None	5.0			No	The stand was flooded by beaver activity. The overstory is dead and the lowland shrubs are in patches.																																																			
110	6239 - Mixed Emergent Wetland	None	47.8			Yes	This portion of the Floodwood Swamp Reservoir is mostly cattails with lowland shrubs along the perimeter.																																																			
111	500 - Water	None	9.0			No	Lowland swale with marsh grass and tag alder																																																			
112	4310 - Pine, Oak Mix	Sapling Medium	20.1	30	1-50	N/A	The jack pine in the stand was harvested in 1995. The residual oak is starting to decline and is coming down. The stand is starting to fill in with oak and jack pine but it is still fairly sparse. It has many large open pockets with canopy closure being closer to 50% than 75%. The area of the stand that has the highest density is along the flooding.																																																			
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113	6126 - Lowland Jack Pine	Poletimber Well	11.2	75	81-110	N/A	The stand is a matrix of uplands and lowlands with the lowlands being the majority. There is an upland ridge along the east side of the stand. This portion is heavy to red pine and oak.																																																			
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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114 629 - Mixed non-forested Wetland None 4.6 No The stand is in the flood plain of the Muskegon River. It is an old oxbow that beaver have been damming up so it is currently flooded.

115 42260 - Natural Pine, Mixed Deciduous Poletimber Medium 23.3 82 81-110 N/A The stand has a significant amount of down jack pines and oaks. This has created several large canopy gaps. These gaps are starting to fill in with oak and jack pine seedlings. The red pine is heaviest in the central portion of the stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	25	Log	14		Northern Pin Oak	Low	5 - 10 feet	5 - 10 feet
Red Pine	10	Log/Pole	11		Red Pine	Trace	< 5 feet	< 5 feet
Jack Pine	55	Pole/Log	9	82	Jack Pine	Low	5 - 10 feet	5 - 10 feet
White Pine	1	Pole	6		Blueberry/Bilberry/Cranberry	High	< 5 feet	< 5 feet
Quaking Aspen	5	Pole	8		White Pine	Low	10 - 20 feet	10 - 20 feet
White Oak	4	Pole/Log	8					

116 6139 - Mixed Lowland Forest Poletimber Medium 9.5 50 81-110 N/A Nyhoff 2016- The stand is in the flood plain of the Muskegon River. There are inclusions of L-type in the stand. The terrain is undulating. The oak, pine and aspen are all declining. So there is a lot of down wood. The understory is heavy to fir and this will eventually dominate the stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	5	Pole	6		Deciduous Shrubs	Medium	5 - 10 feet	5 - 10 feet
Quaking Aspen	20	Pole	6		Balsam Fir	High	Variable	Variable
Balsam Fir	30	Pole/Sapling	6	50				
White Oak	2	Log/Pole	12					
Northern Pin Oak	25	Log/Pole	12					
Jack Pine	18	Pole/Sapling	6					

117 6139 - Mixed Lowland Forest Sawtimber Well 6.5 87 81-110 N/A This stand is a tier that is just a little higher than stand 13. It is very wet and the terrain is hummocky.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	10	Log	15		White Pine	Medium	Variable	Variable
Black/Red (Hybrid) Oak	25	Log	14		Balsam Fir	Medium	Variable	Variable
White Pine	30	Log	14	87	Black/Red (Hybrid) Oak	Low	10 - 20 feet	10 - 20 feet
Red Pine	5	Log/Pole	10		White Oak	Low	10 - 20 feet	10 - 20 feet
Balsam Fir	10	Pole	7					
Red Maple	15	Pole/Log	9					
White Oak	5	Log/Pole	10					

118 42200 - Natural White Pine Sawtimber Medium 3.4 65 81-110 N/A This is a higher terrace and it is heavier to oak regeneration and pine. Many of these areas have significant windthrow or die off and the down woody material is heavy. The oak, aspen, and jack pine on the terrace is declining.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	70	Log	14	65	Red Pine	Trace	10 - 20 feet	10 - 20 feet
Black Cherry	5	Pole	9		Black Cherry	Low	10 - 20 feet	10 - 20 feet
Quaking Aspen	5	Pole	7		Balsam Fir	Trace	5 - 10 feet	5 - 10 feet
Red Pine	15	Log	13		White Oak	High	10 - 20 feet	10 - 20 feet
White Oak	5	Pole	9		White Pine	Low	5 - 10 feet	5 - 10 feet
					Black/Red (Hybrid) Oak	Medium	10 - 20 feet	10 - 20 feet



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
119	6113 - Lowland Maple	Sawtimber Medium	1.4	135	51-80	N/A	S. Nyhoff 2016- The stand is on the flood plain of the Muskegon River. There appears to be a patchy understory of balsam fir. There is also a significant amount of downed wood in the stand. The ash is now dead and the crown closure is around 50%.																																													
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120	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	55.1	12	Immature	N/A	The stand was clearcut in 2014. Natural regeneration survey was done June 2018. The stand has regenerated fairly well. The patchy openings are seeding in with jack pine and oak.																																													
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121	6229 - Mixed Lowland Shrub	None	8.8			No	S. Nyhoff 2016-The stand is on the flood plain of the Muskegon River. The soils are very wet and there is standing water. The ash is gone and it has converted to a lowland shrub type with some ash, cedar, and maple. The crown closure is around 15-20%.																																													
122	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Medium	9.1	119	51-80	N/A	The stand is on the flood plain of the Muskegon River. The soils are very wet. There is a lot of conifer and ash in the understory in places. The stand has significant beaver activity.																																													
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123	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	35.7	20	Immature	N/A	The understory is now featured. Canopy oak is continuing to decline and fall out of stand. Stand cut under Green Tree Jack Pine 73-021-04. All aspen, maple and jack pine were cut as well as any oak marked with orange.																																													
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124	6119 - Mixed Lowland Deciduous Forest	Sawtimber Well	12.1	106	Unspecified	N/A	Red maple river bottom along the muskegon river. Land is blocked by private land.																																													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																						
125	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	6.9	20	Immature	N/A	The stand was final harvested in 2005 with the red pine being retained. The stand was then interplanted with red pine. There is heavy competition from natural oak, red pine, jack pine, and cherry regeneration as well.																																																						
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126	42120 - Planted Jack Pine	Poletimber Well	21.5	51	81-110	N/A	This stand was planted with jack pine in 1973. The amount of hardwoods in the stand is minimal. The jack pine has moderate to poor form. There is some mortality in the jack pine making some canopy gaps. In the gaps the jack pine and oak are trying to regenerate.																																																						
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127	42220 - Natural Jack Pine	Poletimber Medium	5.3	85	51-80	N/A	The oaks are heavier in the north end of the stand, red pines in the south end, and jack pines are distributed throughout. There is some aspen regeneration in the north end of the stand.																																																						
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128	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	16.0	67	111-140	N/A	Variable sized white pine/oak stand. The oak is starting to decline, with white pine filling in. The aspen is declining. The stand is on one of the upper tiers of the Muskegon Flood plain.																																																						
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129	629 - Mixed non-forested Wetland	None	36.1			No	The stand is a beaver flooding. The vegetation goes from marsh to lowland shrubs to water going from east to west.																																																						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																												
130	4125 - Black, N. Pin Oak	Sapling Poor	5.2	20	Immature	N/A	Stand has transitioned to feature the understory. Canopy residual oak continues to show decline. Good regeneration of oak with mixed hardwood and a minor conifer component. Stand cut under Green Tree Jack Pine 73-021-04. All aspen, maple and jack pine were cut as well as any oak marked with orange.																																																												
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131	629 - Mixed non-forested Wetland	None	5.9			No	This stand is along the Green Creek. It is on the flood plain. The ash in this stand is dead so it has converted to non-forested wetland.																																																												
132	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	12.2	75	51-80	N/A	Diverse stand comprised of mixed hardwood with a conifer component. Starting to show signs of oak decline and jack pine mortality.																																																												
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133	110 - Low Intensity Urban	None	3.0				This is a grassy stand that contains a pipeline.																																																												
134	6117 - Lowland Deciduous, Mixed Coniferous	Poletimber Well	1.9	64	81-110	N/A	The stand is wet. The regeneration in the understory is mainly stump sprout red maple but there are some single stem maples in it.																																																												
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																									
135	42220 - Natural Jack Pine	Sapling Poor	1.5	30	1-50	N/A	This stand is an island in a larger conifer type. The area looks like a old well and slurry pit. The jack pine is heavily galled. There is a lot of reindeer moss in the ground cover. The site looks like it may be degraded. Oryx Energy Company gas well plugged in 1947, located in southern half of the stand. Muskegon Development company gas well plugged in 1978, located in northern half of the stand.																																									
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136	42250 - Pine, Oak	Sawtimber Well	11.1	85	81-110	N/A	The red pines are heavier in the south end but common throughout the stand. The jack pines are evenly distributed but declining and coming down in many places. Stand is starting to show oak decline.																																									
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137	42250 - Pine, Oak	Sawtimber Well	81.1	70	111-140	N/A	Nyhoff 2016- This stand is one of the lost 40s. The jack pine and oak in the stand is declining. There is a lot of down woody material. This allowed numerous canopy gaps to exist in the stand. In the gaps is where the regeneration is concentrated.																																									
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138	629 - Mixed non-forested Wetland	None	5.5			No	The central portion of the stand is heavy to lowland shrubs and marsh grass. There are trees around the edges of the stand. These trees are mainly red maple, tamarack, birch, white pine, and jack pine.																																									
139	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	22.5	20	Immature	N/A	The stand was final harvested in 2005. It was then planted to jack pine. In addition there is some naturally regenerating maple, oak and cherry which is mixed with some additional natural jack pine regeneration.																																									
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140	42110 - Planted Red Pine	Sawtimber Well	46.5	91	171-200	N/A	This stand was scheduled to be harvested by the removal of hardwood and jack pine in the Pine Forest Harvest 73-010-05-01. This portion of the sale was not harvested. The stand has a lot of downed wood that is heavy to oak and jack pine. The western portion of the stand has a very heavy understory of balsam fir. The fir goes from seedling to poles in size. The oak and jack pine are more common in the eastern portion of the stand. There is also a drainage that goes through the stand but there is no defined bed and bank.																																									
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141	42250 - Pine, Oak	Poletimber Well	23.7	73	81-110	N/A	Stand visited in winter of 2025. Stand looks similar to previous inventory. This area was left as a buffer along Leota. The jack pine in the stand is declining and falling out as well as some of the oak. There is an area that is wetter than the rest of the stand and in that area there is a high amount of regeneration. The regeneration is heavy to balsam fir, white pine, oak, and jack pine.																																																								
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142	42110 - Planted Red Pine	Sapling Well	16.1	6	Immature	N/A	Stand is developing nicely. No issues observed with the red pine. Some oak mixed into the stand. Year 3 regeneration check: 828 TPA, 10.7% mortality, 95% FTG. Stand passes regeneration check as a fully stocked red pine plantation. No next steps needed. Stand surveyed FY 2021 by contractors (1yr). Data shows 840 TPA for red pine and 99% FTG. Clear cut 5/2019 Windy Night salvage 73-15-18. Trenched 6/2019. Sprayed 9/2020. Planted spring 2021																																																								
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143	4310 - Pine, Oak Mix	Poletimber Medium	10.6	75	81-110	N/A	The stand is declining with a large amount of dead oak and jack pine. Area slopes down significantly towards the north into the adjacent lowland stand. The jack pine has the highest density west and oak east. There is also a fair amount of white pine east. The northwest end of the stand drops down in elevation. There are some prairie remnant grasses in the stand.																																																								
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144	6127 - Lowland Pine	Sawtimber Medium	5.0	97	81-110	N/A	The stand is a drainage and it is very wet. There are also areas in the stand that are marginally uplands which are heavy to maple. In addition there is an area of low wet cedar in the central portion of the east end.																																																								
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145	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	35.5	20	Immature	N/A	The stand was final harvested in 2005. The harvest was to 2" DBH except in the northern portion; there it was cut to 4" DBH. The stand was planted to jack pine. In addition, there is a fair amount of natural regeneration of pine. This regeneration is concentrated in areas of moister soils. There are some problems with galls in the stand but it is not heavily infested with them.																																																								
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
146	4122 - Oak, Pine	Sawtimber Medium	1.3	105	81-110	N/A	The stand has a light understory of white pine and balsam fir. The overstory is jack pine and northern pin oak. The jack pine is heaviest in the central portion of the stand. The jack pine and oak are declining creating significant canopy gaps.
147	110 - Low Intensity Urban	None	0.5				Consumers Energy gas well
148	629 - Mixed non-forested Wetland	None	5.3			No	The stand is in a depression. The crown closure is between 15-25%. The trees in the stand are mainly tamarack, white pine, and red maple. The trees are heaviest along the edges, but some are scattered throughout the stand. There also appears to be significant mortality in the overstory.
149	6233 - Wet Meadow	None	3.7			No	The stand is in a well-defined depression. The edges of the stand are an L-Type. The rest of the stand is marsh grass and water.
150	110 - Low Intensity Urban	None	0.2				Consumers Energy gas well pad.
151	110 - Low Intensity Urban	None	0.5				Consumers Energy gas well pad
152	110 - Low Intensity Urban	None	0.4				Consumers Energy gas well pad.
153	110 - Low Intensity Urban	None	0.4				Consumers Energy gas well pad.
154	4310 - Pine, Oak Mix	Sapling Medium	16.2	20	Immature	N/A	The stand was harvested in 2005 removing all the aspen, red maple, and jack pine. The oaks, red and white pines were retained. After it was harvested there were some small areas planted to jack pine. The oak and jack pine are now coming in well in the understory. The aspen regeneration is along the south side of the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Black/Red (Hybrid) Oak	15	Log	12	85
Red Pine	2	Pole/Log	9	
White Pine	2	Pole/Log	8	
Red Pine	1	Sapling	2	
Black Cherry	5	Sapling	2	
Northern Pin Oak	15	Sapling	2	20
Red Maple	5	Sapling	3	20
White Pine	10	Sapling	2	
Jack Pine	30	Sapling/Pole	3	20
Bigtooth Aspen	15	Sapling/Pole	3	20



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																															
155	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	16.8	42	81-110	N/A	The Stand was harvested to 4" DBH and the pine was retained under contract 73-036-83. The stand is now moving into poles. Most of the stand is stump sprout origin. There are inclusions of wet pockets. There is a trace of white pine which has poor form. The terrain is undulating.																																															
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156	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	18.4	18	Immature	N/A	The stand was clearcut in 2005. It was then trenched and planted with jack pine. Among the planted jack pine there is some natural jack, red and white pine, and oak regeneration. There are also inclusions of leather leaf which are in depressions.																																															
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157	110 - Low Intensity Urban	None	0.6				Consumers Energy gas well pad.																																															
158	4191 - Mixed Upland Deciduous with Conifer	Sapling Poor	39.3	12	Immature	N/A	The stand was harvested in 2014. Natural regeneration survey was done June 2018. Oak regeneration is heavy in areas. The jack pine has areas of thick regeneration in the areas with heavy blueberry ground cover.																																															
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159	42120 - Planted Jack Pine	Sapling Well	89.8	31	51-80	N/A	The stand was clearcut in 1994. Then it was planted to jack pine. The stand is doing well and moving into poles																																															
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160	110 - Low Intensity Urban	None	0.5				Consumers Energy gas well pad.																																															
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162	3104 - Degraded	None	0.4			No	well site permit 15402																																													
163	110 - Low Intensity Urban	None	0.2				Consumers Energy gas well pad. observation well																																													
164	110 - Low Intensity Urban	None	0.5				Consumers Energy gas well pad.																																													
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166	110 - Low Intensity Urban	None	0.2				Consumers Energy gas well pad.																																													
167	110 - Low Intensity Urban	None	0.2				Consumers Energy gas well pad.																																													
168	4130 - Aspen	Sapling Well	93.5	4	Immature	N/A	Stand cut under Blueberry Ridge 73-008-18 and has regenerated very well to aspen and mixed deciduous. The stand is doing well. There is a lot of understory oak. There are also some scattered oak, maple and pine logs. The amount of oak and pine increases going south. The white pine in the stand is concentrated along the private line. The low pockets are along the road and at the south end where there is also a drainage.																																													
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169	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	47.6	41	51-80	N/A	The stand was final harvested to 4" DBH in 1985 under 73-034-83. The regeneration is patchy so there are many areas of open ground, especially in the central portion of the stand. Jack pine is seeding into the open areas. The cherry in the stand appears to be struggling and has significant mortality.																																													
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170	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	11.8	21	Immature	N/A	12/10/2021: Plots were taken to determine competition stem densities for precommercial hand thinnings. Data shows 1114 stems/acre of competition. The stand is now pushing 15' tall with the red pine near the same height as most of the competition. DBH's range from 3-5". Treatment for TSI- Hand mechanical thinning has been dropped on 05/17/2022. Stand has been approved to accept current cover type																																													
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171	4191 - Mixed Upland Deciduous with Conifer	Poletimber Well	21.4	32	81-110	N/A	The stand was harvested as a clearcut in 1994 under Pipeline Aspen 73-035-93. Open pockets are continuing to fill in with oak and white pine. The aspen and jack pine density increases going north.																																										
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172	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Medium	5.2	20	Immature	N/A	The stand was planted to jack pine. The planted pine appears to have had a moderate survival rate. Much of the jack pines have semi-serotinous cones. Therefore, natural seeding of jack pine is occurring. There are also some good areas of natural regenerating oaks and white, red and jack pines. The crown closure is now close to 60%.																																										
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173	110 - Low Intensity Urban	None	0.6				Consumers Energy gas well pad.																																										
174	110 - Low Intensity Urban	None	0.2				Consumers energy gas well pad																																										
175	3104 - Degraded	None	0.1				Consumers energy gas well pad																																										
176	110 - Low Intensity Urban	None	0.4				Consumers energy gas well pad																																										
177	110 - Low Intensity Urban	None	0.4				Consumers energy gas well pad																																										
179	42120 - Planted Jack Pine	Sapling Well	25.1	20	Immature	N/A	Stand was planted with jack pine in 2006. There are some residual pole size red and white pines. In addition there are some scattered clones of aspen.																																										
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180	42100 - Planted White Pine	Poletimber Medium	5.1	55	1-50	N/A	The stand was harvested leaving white pines and was interplanted with jack pine. There is also some seeding in of white and red pine. The stand is also very wet at the south west corner.																																																					
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186	110 - Low Intensity Urban	None	0.4				Consumers Energy gas well pad.																																																					
187	42110 - Planted Red Pine	Sawtimber Well	5.7	96	171-200	N/A	This stand looks like it might have been a plantation, but it is hard to tell. The rows are not straight. The stand has little to no understory, except along the edges and in the larger canopy gaps. Most of the overstory oak in the stand is now dead. There is high presence of established oak and white pine in the understory. This stand is becoming very mature with many large red pine present. There is some suppressed white pine but mainly large and dominant trees.																																																					
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189	4130 - Aspen	Poletimber Well	27.0	33	141-170	N/A	BAT- Southern portion of stand is more mature and mixed. C. Owens 10/13/2023 Clearcut in 1988 Green Creek Good aspen so far wide range in sizes and a 10-year age gap in some core samples. Possible blowdown in the past lead to this discrepancy in ages. As well as tops missing in some larger diameter oak.																																																					
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
190	42260 - Natural Pine, Mixed Deciduous	Sawtimber Poor	5.0	96	1-50	N/A	Stand cut under Blueberry Ridge 73-008-18. 40-50 BA/acre of red pine was left. The overstory oaks are declining. The stand is heavier to white and red pines in the western portion of the stand. The eastern portion is heavier to jack and red pine. Because of the declining overstory there is a lot of downed wood in the stand. The terrain is generally flat but the elevation increases going east.	
Canopy Species		% Cover	Size Class	DBH	Age			
Red Pine		40	Log	15	96			
Northern Pin Oak		20	Sapling	1				
Black Cherry		10	Sapling	1				
Red Pine		5	Sapling	1				
Jack Pine		15	Sapling	1				
Bigtooth Aspen		10	Sapling	1				
191	42200 - Natural White Pine	Poletimber Well	4.4	93	111-140	N/A	The terrain is undulating. The stand is a mixture of pines and hardwoods. The crown closure is around 85%.	
Canopy Species		% Cover	Size Class	DBH	Age			
White Pine		68	Log	10	93			
White Oak		10	Pole/Sapling	6				
Northern Pin Oak		2	Pole/Sapling	6				
Red Pine		10	Pole/Sap/Log	8				
Bigtooth Aspen		10	Sapling/Pole	4				
Sub-Canopy Species		Density	Avg. Height	Size				
Red Maple		Low	10 - 20 feet	10 - 20 feet				
White Pine		Full	10 - 20 feet	10 - 20 feet				
Blueberry/Bilberry/Cranberry		Full	< 5 feet	< 5 feet				
Deciduous Shrubs		Medium	5 - 10 feet	5 - 10 feet				
Oak (spp.)		Low	10 - 20 feet	10 - 20 feet				
192	6120 - Lowland Cedar	Poletimber Well	2.1	103	111-140	N/A	C. Owens 2023- This was a null stand in the compartment inventory. The stand has a lot of variation in the diameter and saturation of the soil. The southern half-acre is slightly higher in elevation and is composed of 15-inch hemlock, 20-inch white pine, and 18-inch red maple. It is the only location where hemlock is found in the stand. While most of the stand is under 8-inch DBH.	
Canopy Species		% Cover	Size Class	DBH	Age			
Northern White Cedar		57	Log	11	103			
Red Maple		11	Log/Pole	10				
White Pine		9	Pole	5				
Balsam Fir		20	Pole	5				
Hemlock		3	Log	15				
193	6128 - Lowland Coniferous, Mixed Deciduous	Poletimber Well	12.8	33	Immature	N/A	C. Owens 2023- A varied stand along the Green creek flooding. Stand is mostly lowland with upland mixed in with lowland. In the northern quarter there is a strong jack pine component that drops out. The white pine is of low to very low quality, where the red maple is good to fair quality.	
Canopy Species		% Cover	Size Class	DBH	Age			
White Pine		38	Log/Pole	10	33			
Balsam Fir		30	Pole	5				
Red Maple		22	Log	14				
194	4222 - Natural Jack Pine	Unspecified	10.2	2			Stand is part of a natural regeneration study on KW habitatThe stand was harvested in 2003 and then planted with jack pine in 2005.	
Sub-Canopy Species		Density	Avg. Height	Size				
Red Maple		Low	< 5 feet	< 5 feet				
Black/Red (Hybrid) Oak		Low	< 5 feet	< 5 feet				
195	500 - Water	None	1.9			No	Muskegon river and its backwaters.	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments					
196	4222 - Natural Jack Pine	Unspecified	10.9	1	Immature		Stand is part of a natural regeneration study of KW habitat. The stand was final harvested in 1995, then it was burned. It was planted in 2005.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Black/Red (Hybrid) Oak	Low	< 5 feet	< 5 feet	
								Black Cherry	Low	< 5 feet	< 5 feet	
197	4222 - Natural Jack Pine	Unspecified	10.4	1	Immature		Stand is part of a natural regeneration study in KW habitat. The stand was final harvested in 1995, then it was burned. It was planted in 2005.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Black/Red (Hybrid) Oak	Low	< 5 feet	< 5 feet	
								Black Cherry	Low	< 5 feet	< 5 feet	
198	42121 - Planted Jack Pine, Mixed Deciduous	Unspecified	9.6	1	Immature		Stand is part of a research project promoting natural jack pine regeneration for kirtland warbler habitat. The stand was harvested in 2003 and then planted with jack pine in 2005.					
								Sub-Canopy Species	Density	Avg. Height	Size	
								Black/Red (Hybrid) Oak	Medium	< 5 feet	< 5 feet	
								Jack Pine	Low	< 5 feet	< 5 feet	
Black Cherry	Low	< 5 feet	< 5 feet									
199	42110 - Planted Red Pine	Sawtimber Well	9.1	89	51-80	N/A	All the log size red pines are located in the southern 1/2 of the stand. This was done to lessen the visual impact of the harvest along the snowmobile trail. The red pine is very sparse in the northern 1/2 of the stand. The pine that shows up on the imagery is pole size white pine. The harvest was called the Otter Pines sale #73-001-09-01. This was completed on 5/27/2014. The stand was interplanted in the spring of 2015 with FTP #C73-95.					
								Canopy Species	% Cover	Size Class	DBH	Age
								White Pine	30	Log	14	
								Red Pine	70	Log	14	89
								Sub-Canopy Species	Density	Avg. Height	Size	
Blueberry/Bilberry/Cranberry	Full	< 5 feet	< 5 feet									
Red Pine	Medium	5 - 10 feet	5 - 10 feet									
Black/Red (Hybrid) Oak	Medium	5 - 10 feet	5 - 10 feet									
200	4310 - Pine, Oak Mix	Poletimber Medium	7.9	97	51-80	N/A	The overstory oaks are declining and falling out. Because of the declining overstory there is a lot of downed wood in the stand. The terrain is generally flat but the elevation increases going east.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Northern Pin Oak	50	Log/Pole	11	97
								Bigtooth Aspen	5	Pole	7	
								Red Pine	10	Log	14	97
Jack Pine	20	Pole/Log	8									
White Pine	15	Pole/Log	8									
Sub-Canopy Species	Density	Avg. Height	Size									
Oak (spp.)	Low	10 - 20 feet	10 - 20 feet									
Red Pine	Low	10 - 20 feet	10 - 20 feet									
White Pine	Low	Variable	Variable									
201	6113 - Lowland Maple	Sawtimber Well	10.1	101	81-110	N/A	S. Nyhoff 2016- The stand is on the flood plain of the Muskegon River and it is very wet. There is a significant amount of downed trees in the stand especially around the vernal pond. The stand has a significant understory of conifer which is mainly made up of balsam fir and white pine. The ash, basswood, and maple are heaviest on the lower ground and hardwood mixed with fir on the higher ground. The ash has heavy EAB but not all the trees are dead at the current time. The EAB on the ash is lowest in areas of thick balsam fir.					
								Canopy Species	% Cover	Size Class	DBH	Age
								Green Ash	10	Log/Pole/Sap	14	
								Red Maple	60	Log/Pole/XLog	14	101
								Balsam Fir	20	Pole/Sapling	5	
White Pine	5	Log/XLog	14									
Basswood	5	Pole	8									
Sub-Canopy Species	Density	Avg. Height	Size									
Ash (spp.)	Medium	< 5 feet	< 5 feet									
Balsam Fir	High	Variable	Variable									
White Pine	Medium	Variable	Variable									
203	500 - Water	None	19.5			No	Muskegon River					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																														
204	4191 - Mixed Upland Deciduous with Conifer	Sawtimber Well	10.9	96	111-140	N/A	Overall the stand is converting to a mixture of oak and pine. It is on one of the higher tiers of the Muskegon River Flood Plain. However, there are old oxbows in the stand which are quite wet. The density is variable. There is a traditional hunting camp in the stand. The understory is heavy to conifer.																																														
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205	6127 - Lowland Pine	Sawtimber Medium	8.3	131	81-110	N/A	S. Nyhoff 2016- The stand is on the flood plain of the Muskegon River and it is very wet. There are 2-oxbows that cross the stand. The area is not on the lowest tier of the flood plain. The understory canopy closure is almost to the point it could be made the featured stand. There has been significant blow down and die off of the super canopy red and white pines making the stand difficult to navigate.																																														
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Balsam Fir	High	Variable	Variable																																																		
206	42290 - Natural Mixed Pine	Poletimber Well	4.2	98	81-110	N/A	Most of the hardwoods were removed in 2006. The stand is out of the bottom land of the Muskegon River. The crown closure is around 70%. However, there are definite open areas in the stand. Also there is a two-track that traverses it going to an oxbow.																																														
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207	500 - Water	None	8.7			No	Oxbow of the Muskegon River																																														
208	6119 - Mixed Lowland Deciduous Forest	Sawtimber Medium	34.3	128	51-80	N/A	S. Nyhoff 2016- The stand is on the flood plain of the Muskegon River. There are many low wet depressions in it. There are areas in the stand that are uplands. The understory is heavy to conifer. Balsam fir is heavier in the north end and white pine in the south end. The crown closure is closer to 50%. There is a creek flowing through the stand from the oxbow. The ash is declining. The stand has a lot of down woody material.																																														
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209	629 - Mixed non-forested Wetland	None	3.7			No	S. Nyhoff 2016- This area is on the flood plain of the Muskegon River. It is low and wet with a mixture of lowland shrubs and herbaceous ground cover. There are some trees in the stand. However, a significant amount of them are down. The crown closure is less than 15%.																																														



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																												
210	42290 - Natural Mixed Pine	Sawtimber Medium	13.9	96	111-140	N/A	The terrain is slightly hummocky. The stand is on the Muskegon River flood plain but has a couple of tiers. It has a thick understory of conifers which is heavy to white pines. The jack pine in the stand is declining. Also there is a drainage that bisects the stand.																																												
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211	6117 - Lowland Deciduous, Mixed Coniferous	Sapling Poor	24.5	40	1-50	N/A	S. Nyhoff 2016- The stand was harvested in 1985 with 4" DBH white pines and oaks being left. The regeneration is patchy leaving some large canopy gaps. These gaps are mainly lowland shrubs or marsh grass. Some of the lower ground swamped out after the overstory was cut. Some of the white pine is sawlog size. However, they are squat having only 2 or 3 sticks in them. There is a two-track that comes off of the private land to the north that goes all the way to the river.																																												
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212	500 - Water	None	6.3			No	This is the Muskegon River and a connected backwater.																																												
213	6113 - Lowland Maple	Sawtimber Well	4.5	121	51-80	N/A	The stand is on the flood plain of the Muskegon River. There are vernal ponds in the stand. The soils, overall, are very wet. The trees have a low percentage of soundness and a high percentage of wildlife activity. The ash is dead and coming down. So there is a lot of course woody material.																																												
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214	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	20.4	131	51-80	N/A	S. Nyhoff 2016- This stand is on the flood plain of the Muskegon River and it is very wet. There is a heavy understory of conifers in place which is mainly balsam fir and white pine. The ash in the stand has heavy EAB and many have died or are declining. The crown closure goes from 0-70% with the overall crown closure being 50-60%. There are also areas of flowing water in the stand.																																												
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215	6113 - Lowland Maple	Sawtimber Medium	12.4	119	51-80	N/A	S. Nyhoff 2016-The stand is on the flood plain of the Muskegon River. The soils are very wet. Where the stand meets the uplands to the south there is a steep slope going out of the flood plain. There is evidence of some beaver activity near the back waters at the west side of the stand. The slope portion of the stand and the dryer low ridges is where the conifers are located.																																												
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216	6112 - Lowland Aspen	Sapling Well	8.6	38	1-50	N/A	This stand is on one of the higher tiers of the Muskegon River Flood Plain. It was harvested in 1987. There is a significant amount of conifer in it. However, much of it has been overtopped by aspen. There is seasonal standing water in it, especially along the bottom of the ridge, and in the west end of the stand. The stand is moving well into poles.																																												
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217	6130 - Fir, Aspen, Maple	Sapling Well	23.4	31	Immature	N/A	S. Nyhoff 2016- The terrain is a mixture of uplands and lowlands with most of the stand being lowlands. There are drainages visible along the west side of it. Along the east side is a steep bank going out of the Muskegon River Flood Plain. The stand was harvested in 1995 in which some of the 4" white pines and oaks were left. There is a two-track that comes off of the private land to the north.																																												
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218	500 - Water	None	9.7			No	Muskegon river and its backwaters.																																												
219	500 - Water	None	8.8			No	Muskegon River and its back waters.																																												
220	4133 - Aspen, Mixed Pine	Poletimber Well	11.2	38	171-200	N/A	This stand is on the ridge above the Muskegon River Flood Plain. There are some low swales. It was harvested 1987. The density is somewhat variable and there are several larger openings. Around these openings the aspen density is very good.																																												
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224	6139 - Mixed Lowland Forest	Sawtimber Medium	21.5	132	Unspecified	N/A	S. Nyhoff 2016- This stand is on the Muskegon River flood plain. The south edge of the stand is a steep bank that climbs out of the flood plain. Most of the conifer is located on the slope. The slope is where all the XL white pine and most of the understory balsam fir are located. The flood plain itself is mainly hardwoods. The ash is dead, but there is still some red maple, basswood, swamp white oak, and balsam fir.																																											
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225	42250 - Pine, Oak	Poletimber Well	46.9	25	51-80	N/A	The stand was cut to 4" DBH in 2000. The regeneration is heaviest along the old skid trails. Because of this the overall regeneration is patchy. The portion of the stand that lies west of the snowmobile trail has a lower crown closure being around 50%. However, east of the trail the density is much better with a crown closure which is around 80%. Overall, the stand has an average crown closure which is around 75%																																											
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226	42220 - Natural Jack Pine	Unspecified	24.6	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.																																											
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227	6113 - Lowland Maple	Sawtimber Medium	21.6	121	81-110	N/A	Lowland maple in the Muskegon river floodplain. The southern and eastern edges are bordered by a steep bank that climbs out of the flood plain.																																											
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228	4310 - Pine, Oak Mix	Poletimber Well	9.6	30	51-80	N/A	The stand was harvested in 1995. It has regenerated fairly well. Jack pine appears to be heaviest in the SE portion of the stand, white pine along the NW edge. The regeneration is natural from seed and oak stump sprouts.																																											
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229	42210 - Natural Red Pine	Unspecified	59.7	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.																																											
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230	3102 - Grass	None	1.6			No	Pipeline																																											



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
231	42220 - Natural Jack Pine	Unspecified	16.3	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.
232	42210 - Natural Red Pine	Unspecified	20.8	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.
234	42220 - Natural Jack Pine	Unspecified	36.9	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.
235	42210 - Natural Red Pine	Unspecified	38.8	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.
237	500 - Water	None	7.0			No	Muskegon River
238	42120 - Planted Jack Pine	Poletimber Well	83.9	28	51-80	N/A	Stand has been identified to restart with adjacent KW commercial timber sale. The stand will be cut with "Temple Trails KW" 73-003-22
239	4136 - Aspen, Mixed Conifer	Poletimber Well	3.1	36	1-50	N/A	This stand is a narrow one along the bluff that overlooks the Muskegon River flood plain. The east end is heavier to oak, the west end heavier to white pine and the center is aspen. The upper portion was harvested in 1989 and has regenerated well to aspen. The present oak is declining and falling out. The stand is very diverse for such a small area likely due to its proximity to the river.
240	42210 - Natural Red Pine	Unspecified	39.5	2	Immature		Stand harvested in the Spring of 2024 under "Temple Trails KW", trenched in 2025 & will be planted to KW in FY 2027.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																				
241	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Well	38.8	27	81-110	N/A	The stand was harvested in 1999. Then trenched and planted to jack pine in 1999. In many areas the jack pine seems not to have taken. However, there is a significant amount of oak and jack pine regeneration between the rows. The oak regeneration is heaviest along the west edge.																																				
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242	42220 - Natural Jack Pine	Poletimber Well	5.3	69	81-110	N/A	This is a pocket of jack pines. There are some scattered red pines but it is minimal. Most of the red pine is along the boundary. The jack pine has some mortality but at the current time it is not too bad.																																				
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245	42110 - Planted Red Pine	Sawtimber Well	44.2	91	141-170	N/A	The terrain in the stand is rolling. This area was part of the Pine Forest Harvest #73-010-05-01 but it was not harvested. The oaks and jack pines are declining. There is a lot of down jack pine in the stand. There are also some inclusions of low wet ground.																																				
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250	500 - Water	None	2.5			No	Muskegon River																																				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																														
251	42201 - Natural White Pine, Mixed Deciduous	Poletimber Well	6.0	61	81-110	N/A	The oaks and jack pines are declining. There is a pole size understory of white pine that is now progressing to the overstory. The west side of the stand includes the steep bluff that overlooks the Muskegon River Flood Plain. The stand has many areas that are used for disperse camping. Manage stand as Muskegon river bottom buffer from KW Management Block.																																														
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252	42121 - Planted Jack Pine, Mixed Deciduous	Poletimber Medium	24.1	25	51-80	N/A	The stand was harvested in 1997. It was trenched and seeded in June of 2001. The regeneration is variable and goes from well stocked to medium stocked. There are some veins of natural jack pine in the stand that are doing very well.																																														
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Northern Pin Oak	17	Pole/Sapling	5																																																		
253	629 - Mixed non-forested Wetland	None	22.7			No	This is an open marsh that is filling in with lowland shrubs around the perimeter; especially in the eastern leg. It is also in a well-defined depression that is part of a larger wetlands complex.																																														
254	42220 - Natural Jack Pine	Unspecified	22.8	3	Immature		Stand harvested in the Spring of 2023 under "Temple Trails KW". The natural regeneration of oak is very strong & will be accepted as the current cover type.																																														
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256	42121 - Planted Jack Pine, Mixed Deciduous	Unspecified	25.7	1	Immature		The stand was masticated in the spring of 2025 & trenched in the summer of 2025. The stand was harvested in 2008 and replanted to jack pine in 2009. The stand is coming along well. There is also a lot of oak regeneration in the stand.																																														
257	6131 - Hemlock, White Pine, Maple, Birch	Sawtimber Well	6.6	129	111-140	N/A	The stand is on the flood plain of the Muskegon River. It has a dense understory of conifers, which is heavy to balsam firs and white pines. There is a portion of an old oxbow along the east side. The stand lies along the bottom of a steep bluff that overlooks the flood plain. The stand is variable in species mix but fairly uniform in density. The terrain is hummocky.																																														
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258	42120 - Planted Jack Pine	Poletimber Well	22.0	28	51-80	N/A	This stand was harvested in 1995 and it was planted to jack pine in 1997. The stand is very dense with some low wet pockets.																																														
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
259	42210 - Natural Red Pine	Sawtimber Well	7.0	91	141-170	N/A	This stand is an upland knob surrounded by low wet ground. A marsh borders the north side and a lowland conifer swamp is on the south side. There is significant mortality in the oaks and jack pines making numerous canopy gaps. Some of the gaps are starting to fill in with pines and oaks. The overall canopy closure is closer to 75%				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		65	Log/XLog/Pole	14	91	Red Pine		Low	Variable	Variable	
Jack Pine		10	Pole/Log	9		Balsam Fir		Medium	Variable	Variable	
Northern Pin Oak		20	Log/Pole/XLog	14		White Pine		Low	Variable	Variable	
Balsam Fir		5	Pole/Sapling	6		Pin Cherry		Low	10 - 20 feet	10 - 20 feet	
261	6225 - Bog	None	8.7			No	Lowland leatherleaf bog with sporadic spruce, tamarack and jack pine along the edges.				
262	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Well	12.7	101	Unspecified	N/A	The stand goes down over a steep bank and on to the Muskegon River Floodplain. The soils are very wet. The ash in the stand is dead. The oak is also declining. The understory conifer is scattered through the center of the stand. Some of the overstory is white pine; especially along the slope at the west end. The stand is bisected by a pipeline that crosses the river.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		40	Log/Pole	11	101	Balsam Fir		Medium	10 - 20 feet	10 - 20 feet	
White Pine		10	Log/Pole/Sap	14		White Pine		Medium	10 - 20 feet	10 - 20 feet	
Balsam Fir		10	Pole	8		Northern Pin Oak		Medium	5 - 10 feet	5 - 10 feet	
White Oak		5	Log/Pole	10		Red Maple		High	10 - 20 feet	10 - 20 feet	
Bigtooth Aspen		30	Log	12		Deciduous Shrubs		Full	5 - 10 feet	5 - 10 feet	
264	6225 - Bog	None	3.8			No	This stand is made up of 3 wet depressions. They are mainly leather leaf with some scattered jack pines, tamarack, spruce and fir.				
265	42110 - Planted Red Pine	Sawtimber Well	61.0	85	111-140	N/A	All the mature jack pine and oak were removed in 2000. The oak understory is now getting established. The northern portion of the stand is on a lower tier and has some wet pockets. The rest of the stand is dry. At the present time the red pine is acting as a nurse crop for the oak regeneration. It should be considered to remove the red pine overstory to release the oak. The Natural Gas Injection Sites #341 & #255 and associated pipelines are in the stand.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		85	XLog/Log	18	85	Oak (spp.)		High	5 - 10 feet	5 - 10 feet	
White Pine		8	Log	12		White Pine		Low	5 - 10 feet	5 - 10 feet	
Jack Pine		2	Pole	6		Jack Pine		Medium	5 - 10 feet	5 - 10 feet	
Bigtooth Aspen		5	Sapling	3		Common Blackberry		Medium	< 5 feet	< 5 feet	
						Bigtooth Aspen		Low	>20 feet	>20 feet	
						Red Pine		Low	5 - 10 feet	5 - 10 feet	
266	6123 - Lowland Fir	Poletimber Well	9.0	55	81-110	N/A	The stand is low and wet and it is made up of swamp conifers. There are some hardwoods along the eastern edge. The balsam fir is a major component of the stand at the north end. In the central portion of the stand it is mixed with cedar, spruce, birch, quaking aspen, red maple and white pine.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
White Pine		2	Log/XLog	16		Tag Alder		Medium	10 - 20 feet	10 - 20 feet	
Black Spruce		12	Pole/Sapling	7							
Quaking Aspen		2	Pole/Sapling	6							
Red Maple		2	Sapling/Pole	4							
Paper Birch		2	Pole/Sapling	5							
Northern White Cedar		25	Pole	8							
Balsam Fir		55	Pole/Sapling	7	55						



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																
267	6124 - Lowland Spruce-Fir	Poletimber Medium	70.0	121	81-110	N/A	The ash in the stand is dead making large canopy gaps. Some of the areas have a very low density in the overstory. These areas do have a thick understory of spruce and fir. Overall the stand is very wet.																																																
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268	4199 - Other Mixed Upland Deciduous	Sawtimber Well	9.6	123	81-110	N/A	This stand is on the bluff above the flood plain of the Muskegon River. There is a component of pines in the stand which are concentrated in the SE corner. Land is blocked by private land.																																																
269	6123 - Lowland Fir	Poletimber Medium	5.7	41	81-110	N/A	This stand was habitat cut. It has regenerated and it is now a mixture of balsam fir, spruce, and some hardwoods. There is some ash regeneration. It is doing okay at the current time.																																																
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270	42250 - Pine, Oak	Sapling Well	14.6	28	Immature	N/A	The stand was harvested in 1997. It has regenerated to a mixture of jack pine and pin oak. The density is greatest along the north edge. The trees get sparser going southeast. The crown closure goes from 50 to 100 %, however it averages 75%.																																																
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271	42220 - Natural Jack Pine	Poletimber Medium	9.5	35	1-50	N/A	The stand was visited in winter of 2025, and conditions remain similar to the previous inventory. Most trees are not high quality and have not grown much since the previous inventory. The cherry has high instances of black knot fungus. The stand was final harvested in 1990. The regeneration is patchy. The stand is mainly jack pine but there are some small clones of aspen and scattered oak stump sprouts. The pines in the stand are also patchy but it is more evenly distributed. The density is higher in the east 1/2 of the stand. The trees are open grown so they are branchy and squat. Gas Storage pipelines run through this stand.																																																
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Oak (spp.)	Medium	< 5 feet	< 5 feet																																																				
272	42110 - Planted Red Pine	Sawtimber Well	48.6	91	141-170	N/A	This stand was scheduled to be harvested by the removal of hardwoods and jack pines in the Pine Forest Harvest 73-010-05-01. This portion of the sale was not harvested. The jack pine in the stand has poor form and it is declining.																																																
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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273	42110 - Planted Red Pine	Sapling Medium	52.4	15	Immature	N/A	The stand was harvested in the Hemlock RRP sale #73-015-08-01. The harvest occurred in 2008. The stand was planted to red pine in 2011 with FTP #C73-847. The stand has some residual fir and white pine. Though the stand was planted to red pine the oak is currently dominate. The crown closure is low enough that the red pine is still free to grow, for the most part. Aerial release spray 9/2020
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Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	10	Sapling	2	15
Red Pine	70	Sapling	1	15
Balsam Fir	3	Sapling	3	
Black Cherry	1	Sapling	2	
White Pine	1	Sapling	1	
Jack Pine	10	Sapling	2	
White Spruce	5	Sapling	3	

274	4310 - Pine, Oak Mix	Sapling Well	26.2	11	Immature	N/A	Stand was surveyed during April 2026. 3100 TPA average with red pine having 1409 TPA. In 2002 the stand had a dead oak salvage and final harvested on 5/27/2014. under Otter Pines sale #73-001-09-01. It was then trenched and planted with red pine FTP #C73-869 in the spring of 2015. The year 1 artificial regen was surveyed 6/7/16 RP was at 425 stems/ac. oak 1088 stems/ac, Non-target 363 stems/ac.
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Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	45	Sapling	2	11
Black Cherry	10	Sapling	2	
Black/Red (Hybrid) Oak	30	Sapling	2	
Jack Pine	11	Sapling	2	
Quaking Aspen	4	Sapling	2	

275	629 - Mixed non-forested Wetland	None	22.9			No	The stand is a large non-forested wetland. It goes from shrubs to marsh to open water. Green Creek flows through it.
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276	4122 - Oak, Pine	Sawtimber Medium	3.9	105	81-110	N/A	The stand has a light understory of white pine and balsam fir. The overstory is jack pine and northern pin oak. The jack pine is heaviest in the central portion of the stand. The jack pine and oak are declining creating significant canopy gaps.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	10	Pole/Log	9		Oak (spp.)	Low	5 - 10 feet	5 - 10 feet
Jack Pine	20	Pole	8		White Pine	Low	Variable	Variable
Northern Pin Oak	70	Log/Pole	12	105	Red Pine	Trace	Variable	Variable

277	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	30.7	24	Immature	N/A	The stand was harvested in 1997. It was trenched and seeded in 2001 with the sigma seeder. The seeding had good results. The area is now a mixture of jack pine and oak. There are pockets of near pole size jack pine. The stand also has a significant amount of natural regeneration.
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Canopy Species	% Cover	Size Class	DBH	Age
Pin Cherry	3	Sapling	2	
Northern Pin Oak	17	Sapling	3	

278	4133 - Aspen, Mixed Pine	Poletimber Well	4.8	37	51-80	N/A	The stand was harvested in 1998. The regeneration is in several large patches. The stand has some scattered white and red pines. The crown closure overall is around 80%.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	75	Pole	6	37	Balsam Fir	Medium	< 5 feet	< 5 feet
Red Pine	6	Pole/Log	9		White Pine	Low	5 - 10 feet	5 - 10 feet
White Pine	4	Sapling	2		Red Pine	Low	5 - 10 feet	5 - 10 feet
Black Cherry	5	Pole	6					
Jack Pine	10	Pole	7					



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments			
279	4211 - Planted Red Pine	Unspecified	33.5	4	Immature		Stand will be planted to red pine in FY '26. Aerial drone sprayed 07/22/2025. Stand trenched in April 2023. Site prep herbicide treatment delayed until FY '25 to wait for the competitive jack pine regeneration. Stand cut & chipped in Spring 2022 under Blueberry Ridge 73-008-18. The stand was cut in 1970. It is now a mixture of jack pine and pin oak. There are some red maples in it; especially in the western and southern ends. The NW corner is pure jack pine. some of the J Pine is showing signs of decline.			
280	6113 - Lowland Maple	Sawtimber Poor	3.5	105	1-50	N/A	The stand borders Green Creek. It is on the flood plain of Green Creek and the soils are very wet. It is mainly red maple and ash with some scattered white pines. The ash in the stand is dead or dying. The ground cover is mainly marsh grass. There are some uplands at the east end.			
		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
		Green Ash	10	Log	14		Tag Alder	Full	5 - 10 feet	5 - 10 feet
		Red Maple	90	Log	14	105				
281	42111 - Planted Red Pine, Mixed Deciduous	Sapling Well	41.9	25	Immature	N/A	The stand was harvested then trenched and planted to red pine. The planted red pine has a high survival. There are also a lot of volunteers of oaks and jack pines. Much of the oak regeneration is stump sprouts. There are also 3 clones of aspen in the south west end of the stand. There is no aspen in the main part of the stand. Aerial release spray 9/2020			
		Canopy Species	% Cover	Size Class	DBH	Age				
		Red Pine	65	Sapling	3	25				
		Northern Pin Oak	20	Sapling/Pole	4					
		White Pine	1	Sapling	1					
		Jack Pine	10	Sapling	3					
		Balsam Fir	1	Sapling	1					
282	110 - Low Intensity Urban	None	1.4				/H AND H STAR ENERGY INC. Well plugged 08/28/1988.			
283	42200 - Natural White Pine	Sawtimber Medium	27.1	46	1-50	N/A	The stand was harvested in 2000 leaving all the pines. The regeneration is mainly oak stump sprouts and some white pine. The stand is now heavily dominated by white pine that varies in size. Natural Gas Storage Pipelines runs along the roadway. The white pines in the stand appear to have weevil problems.			
		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
		White Pine	85	XLog/Log/Pole	18	46	White Pine	Medium	10 - 20 feet	10 - 20 feet
		Northern Pin Oak	8	Log	12		Common Blackberry	Medium	< 5 feet	< 5 feet
		Red Pine	2	Log	14		Oak (sp.)	High	10 - 20 feet	10 - 20 feet
		Jack Pine	5	Pole	8	46	Red Maple	Low	10 - 20 feet	10 - 20 feet
							Blueberry/Bilberry/Cranberry	High	< 5 feet	< 5 feet
284	42201 - Natural White Pine, Mixed Deciduous	Sawtimber Well	10.0	78	81-110	N/A	This stand is along the Green Creek. It drops off into the flood plain going west. Along the creek it is heavy to red maple with pine becoming heavier going away from the creek. The ash in the stand is dead.			
		Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
		White Pine	60	Log/Pole	13	78	White Pine	High	Variable	Variable
		Northern Pin Oak	20	Log	14		Red Maple	Low	10 - 20 feet	10 - 20 feet
		Red Pine	10	Log/Pole	11		Balsam Fir	Medium	Variable	Variable
285	500 - Water	None	8.5			No	This stand is a portion of the Muskegon River.			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																							
286	42120 - Planted Jack Pine	Sapling Well	14.8	25	1-50	N/A	The stand was Clear-cut and replanted to jack pine in 2000. Several rows of red pine were left along Haskel Lake Road for visual. There is a Natural Gas Storage Injection site and pipeline here. The trees in the stand look healthy and the oak, according to the imagery is scattered throughout the stand. The stand is developing well and is on its way to being in the pole class.																																							
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287	629 - Mixed non-forested Wetland	None	22.4			No	This stand is a large non-forested wetland. The area goes from a beaver meadow to lowland shrubs. Green Creek makes up the southern border. The east end is more of an N-Type and the west end more of an L-Type.																																							
288	6113 - Lowland Maple	Sawtimber Poor	26.6	117	1-50	N/A	S. Nyhoff 2016- The stand goes down over a steep bank then onto the Muskegon River Floodplain. The soils are very wet on the floodplain and there is not much understory. The slope coming out of the floodplain is heavy to conifer. There are also numerous springs in the slope. The floodplain itself is mostly hardwoods. Much of this is ash and it is dead or dying. There is no Commercial Harvest Opportunities in this stand.																																							
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289	6117 - Lowland Deciduous, Mixed Coniferous	Sawtimber Medium	12.1	108	51-80	N/A	The stand is along the flood plain of Green Creek. The bluff that overlooks the flood plain becomes more pronounced going south. There is also a significant understory of conifer that also becomes more pronounced going south. Along the creek there is an open area that is non-forested. However, it is less than 0.4 acres in size.																																							
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290	42110 - Planted Red Pine	Sawtimber Well	16.2	66	171-200	N/A	Natural gas injection site and pipeline is in the stand and long the north edge. This stand was third row thinned in 1991 and thinned again in 2013 to a BA of 120. The red pine is still doing well. The basal area is closer to 170 than 140 on average. There are some pockets of dieback that may need to be addressed.																																							
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291	3102 - Grass	None	1.8			No	This stand is a petroleum pipeline.																																							
292	4130 - Aspen	Poletimber Well	17.9	35	1-50	N/A	The stand was harvested in 1990. The regeneration is good overall. There are some significant openings in the stand that are sparsely treed. The average crown closure is around 85%, but it ranges from 10 to 100%. The aspen is developing into poles. The white pine ranges in size from 8 inches in diameter to 18 inches.																																							
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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293 42121 - Planted Jack Pine, Mixed Deciduous Sapling Medium 54.0 24 Immature N/A The stand was harvested in 1997, and then seeded in 2001 with the sigma seeder. Mixed jack pine and oak stand.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	3	Sapling	2		Sweet Fern	Low	< 5 feet	< 5 feet
Pin Cherry	6	Sapling/Pole	2					
Red Pine	1	Sapling	1					
Northern Pin Oak	25	Sapling	3					
Jack Pine	65	Sapling	4	24				

294 6120 - Lowland Cedar Poletimber Well 4.6 110 111-140 N/A The stand is on the flood plain of the Muskegon River. The soils are very wet. The stand is heavy to cedar with some balsam fir and white pine. There is a lot of down woody material.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	1	Log/Pole/XLog	12		Balsam Fir	Medium	>20 feet	>20 feet
White Pine	3	Log/Pole/XLog	14					
Hemlock	2	Log/Pole/Sap	14					
Balsam Fir	9	Pole/Sapling	6					
Northern White Cedar	85	Pole	6	110				

295 42141 - Planted Mixed Pine, Mixed Deciduous Sapling Well 18.8 11 Immature N/A All the log size red pines are located in the southern 1/2 of the stand. This was done to lessen the visual impact of the harvest along the snowmobile trail. The red pine is very sparse in the northern 1/2 of the stand. The pine that shows up on the imagery is pole size white pine. The harvest was called the Otter Pines sale #73-001-09-01. This was completed on 5/27/2014. The stand was interplanted in the spring of 2015 with FTP #C73-95.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	30	Sapling	2	11	Blueberry/Bilberry/Cranberry	Full	< 5 feet	< 5 feet
White Pine	15	Log/Pole	14	76				
Black/Red (Hybrid) Oak	40	Sapling	1	11				

296 42110 - Planted Red Pine Sapling Well 41.1 11 Immature N/A Artificial regeneration check conducted April of 2026. 1990 TPA with 1275 TPA being red pine and 450 jack pine. Stand cut under Otter Pines sale #73-001-09-01 & was trenched and planted with red pine under FTP #C73-869 in spring of 2015. The planted pine is doing well with some mortality but not bad. There are a lot of volunteer oak and jack pine coming in. Year 1 artificial regen check 6/7/16 had 669 stems/ac RP, 1881 stem/ac oak., and 488 stem/ac non-target.

Canopy Species	% Cover	Size Class	DBH	Age
Black/Red (Hybrid) Oak	4	Sapling	2	
Red Pine	64	Sapling	2	11
Jack Pine	22	Sapling	2	
Black Cherry	10	Sapling	2	

297 4310 - Pine, Oak Mix Sapling Well 45.3 17 1-50 N/A The stand was harvested in 2008 leaving all the white pines and marked oaks. The residual was around 18 sq. ft when harvested. The overstory crown closure is around 25%. Regeneration is variable density.

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	8	Sapling	2		Northern Pin Oak	Low	< 5 feet	< 5 feet
White Pine	3	Pole/Sap/Log	9					
Northern Pin Oak	23	Sapling	2	17				
Jack Pine	46	Sapling	2	17				
Balsam Fir	5	Sapling/Pole	4					
Northern Pin Oak	15	Log	12	101				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																				
298	6123 - Lowland Fir	Poletimber Well	11.7	78	111-140	N/A	S. Nyhoff 2016- The stand is on the flood plain of the Muskegon River. It has good species diversity. The understory is heavy to conifers, mainly balsam. The soils are very wet. There is a lot of down woody material in the stand.																																																				
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299	42140 - Planted Mixed Pine	Sapling Well	15.5	11	1-50	N/A	The harvest of the stand left all the scattered red pines and some marked oaks. This was completed on 5/27/2014 with the Otter Pines sale #73-001-09-01. The stand was then trenched in the fall of 2014 and planted with red pine in the spring of 2015 with FTP #C73-951. The interplanted red pine seedlings survival looks to be mediocre being around 50-60%. There is also a significant amount of red and jack pine that seeded in from the surrounding stands. Regeneration has become established.																																																				
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300	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	23.1	65	111-140	N/A	The stand goes in and out of the flood plain of Green Creek. On the flood plain the stand is heavy to fir. Out of the flood plain the stand is heavy to white pine. Overall the stand is variable. There are also inclusions, of lowland shrubs but they are less than .5 acres in size. Hardwoods become more common going north.																																																				
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301	6132 - Mixed Lowland Forest with Cedar	Poletimber Medium	34.1	93	51-80	N/A	The stand is on the flood plain of the Muskegon River. There is a lot of down woody material (ash) making the stand difficult to navigate.																																																				
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302	42110 - Planted Red Pine	Sapling Medium	11.4	23	1-50	N/A	The stand was left as a buffer when stand 304 was harvested. However, in 2002 it was cut and replanted too red pine. There is some oak and cherry regeneration, but it is minimal. The red pine is not starting to self-prune yet. The jack pine is growing quickly between the red pine and is overtopping and outcompeting the red pine, especially near the road.																																																				
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303	6128 - Lowland Coniferous, Mixed Deciduous	Sawtimber Well	17.1	91	111-140	N/A	Stand visited in winter of 2025. It looks similar to the previous inventory conditions. The stand drops down over a slope then into the flood plain of the Muskegon River. The slope is heavy to balsam fir, maple, white pine and red pine. The balsam, fir on the slope is falling out. The base of the slope is very wet and it is heavy to cedar, balsam fir and hemlock. Trees on the slope are overmature. The ash in the stand is dead or dying. There is a creek in the stand and numerous springs in the slope. So overall the stand is not manageable.																																											
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304	42110 - Planted Red Pine	Poletimber Well	51.7	35	51-80	N/A	The stand was clear cut and replanted to red pine in 1990. (Notes:SI RP=54 MUCH BETTER THAN JP) Besides what was planted, there is some naturally regenerating oak and cherry. The oak and cherry is heaviest in the west 1/2 of the stand. The stem density goes from 40 to 180 BA. The BA of the stand is very variable in some spots. Some canopy gaps are present allowing jack pine to grow. The red pine is starting to self-prune.																																											
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305	6129 - Mixed Coniferous Lowland Forest	Sawtimber Well	3.5	91	141-170	N/A	The stand drops down into the flood plain of the Muskegon River and the east edge is a steep slope. The slope is heavy to balsam fir, maple, white pine and red pine. The base of the slope is very wet and it is heavy to cedar, balsam fir and hemlock. There is a creek in the northern portion of the stand. Overall the stand is not manageable.																																											
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306	42110 - Planted Red Pine	Poletimber Well	13.1	70	201+	N/A	The stand was planted in 1955 among oaks and white pines. The rows are not straight but they are well defined.. There are some wolfy oak present several of them are dead or dying. The stand sits on a ridge between the Muskegon River and Green Creek. The terrain is level.The regeneration is heaviest at the north end of the stand.																																											
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307	4211 - Planted Red Pine	Unspecified	38.6	2	Immature		Year 1 artificial regen survey: 804 TPA, 5.5% mortality & 100% FTG. No competition. Red pine is doing great. Stand planted in May of 2025. 924 TPA of red pine. Stand sprayed in August 2024. Stand trenched in April 2023. Cut under Blueberry Ridge 73-008-18.																																											
308	42111 - Planted Red Pine, Mixed Deciduous	Sapling Medium	21.7	13	Immature	N/A	Planted red pine stand with a minor component of oak and black cherry filling in regeneration gaps. Long term retention was left in the NE corner of the stand. Canopy closure is closer to 75% Regen was survived in May of 2016 and the stand averaged 1122 stems/ac.The stand was clearcut in May of 2012 and planted to red pine in the spring of 2013 (FTP C73-871). The planted pine has a good survival.																																											
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																						
309	42110 - Planted Red Pine	Poletimber Well	22.7	26	1-50	N/A	The stand was Final harvested and replanted in 2000. The stand is filling in very well and the crown closure is around 75%.																																																						
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White Pine	5	Sapling	2																																																										
310	4310 - Pine, Oak Mix	Sapling Medium	6.8	14	Immature	N/A	Planted red pine stand that has transitioned to more of a planted / mixed deciduous cover type. Stand will continue to fill in as oak and jack pine mature. Regen survey conducted Nov 2025 shows 1400 TPA. Red pine 600 TPA, oak 700 TPA. The stand was clearcut in May of 2012 and planted to red pine in the spring of 2013 (FTP C73-871). The planted pine has a good survival. There is also a fair amount of stump sprout oak. Regen was survived in May of 2016 and the stand averaged 1122 stems/ac.																																																						
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Red Pine	43	Sapling	2	14																																																									
Jack Pine	7	Sapling	2																																																										
311	42110 - Planted Red Pine	Poletimber Well	31.3	35	81-110	N/A	This stand is mainly a red pine plantation that was planted in 1990. There is oak and jack pine natural regeneration scattered throughout the stand. Red pine is beginning to self prune.																																																						
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312	42110 - Planted Red Pine	Sawtimber Well	38.2	87	111-140	N/A	This is an old hand planting, and the rows are vaguely running E/W. The record indicates it was hand planted in 1938. All jack pines, oaks and marked red pines were removed in 2000. The stand was thinned again in 2014 under the Otter Pines Sale. There is excellent quality timber in the stand and some of them are Utility Poles. The crown spacing created by the harvest is still good. The stand has a lot of oak regen in the understory and will be well established in 10 years. There is a Natural Gas Storage Injection pipelines are located along the north edge																																																						
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313	42290 - Natural Mixed Pine	Poletimber Well	20.6	77	111-140	N/A	Stand visited in winter of 2025. Stand looks similar to the previous inventory. This area was left as a buffer along Leota. The jack pine in the stand is declining and falling out as well as some of the oak. The openings created by the dying trees are filling in with oak, red pine, jack pine, and white pine. The red pine appears to be thickest along Finley Lake Ave. The jack pine is heaviest along Muskegon Rd. The red pine is scattered throughout the stand.																																																						
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																													
314	42141 - Planted Mixed Pine, Mixed Deciduous	Sapling Well	5.5	11	Immature	N/A	There is a slight hill on the east end of the stand. It was harvested in the Otter Pines sale #73-001-09-01. It was completed 5/27/2014. There is a fair amount of slash left in the stand after it was harvested. Red pines were planted 4/28/2015 with FTP C73-869. A portion of the SE corner was left for retention. Site release sprayed in Sept. 2019. Planted pine is being overtopped by the jack pine and oak regeneration. There are some large oaks left that are dead.																																													
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315	42110 - Planted Red Pine	Sawtimber Well	37.6	90	111-140	N/A	Red pine stand of good quality for the soil type. BA is fairly consistant and diameters as well. Minornoak component in the understory. 11/2025. Stand thinned under Blueberry Ridge 73-008-18. Currently sitting around 90-100 BA/AcreThe stand was thinned in 1996. The basal area was taken down to around 90 sq. ft. The stand was left as a buffer to the Yellow Bird Sale. Currently the trees are just moving from poles into logs.																																													
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Red Pine	100	Log	12	90	Oak (spp.)	Medium	5 - 10 feet	5 - 10 feet																																												
316	42110 - Planted Red Pine	Sawtimber Well	19.4	90	111-140	N/A	Stand is closer to 111 than 140. Canopy gaps are starting to fill in. Some white pine recruiting into the upper canopy layer. Stand thinned under Blueberry Ridge 73-008-18. Currently sitting around 90-100 BA/AcreThe stand may have been planted during the early CCC days but now it looks natural. There are openings in the crowns and they are filling in with oak and pine. This stand was thinned in 1986 and is being left as a buffer to the Yellow Bird Sale.																																													
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318	500 - Water	None	15.0			No	This is the Muskegon River																																													
319	6123 - Lowland Fir	Poletimber Medium	4.2	45	81-110	N/A	Stand visited in winter of 2025. Stand conditions are similar to that of previous inventory. Stand is heavily dominated by pole sized fir. The southern edge of the stand is heavy to balsam fir. This area is also a steep slope going down to the drainage that flows through stand 332. There the rest of the stand is very wet and is heavy to black spruce, balsam fir, and other lowland conifers. The stand was habitat cut in 1980. The north end had some beaver activity that killed off a portion of the conifer.																																													
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Tamarack	5	Sapling/Pole	4																																																	
320	500 - Water	None	4.5			No	This is one of the existing oxbows of the Muskegon River.																																													
321	629 - Mixed non-forested Wetland	None	2.8			No	This is an island surrounded by an oxbow of the Muskegon River. The soil appears to be very wet on the 2010 imagery. The hardwoods are dead and have come down or are now standing dead. The only live trees are a patch of spruce/fir in the center.																																													



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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322 6113 - Lowland Maple Sawtimber Medium 48.8 100 51-80 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	80	Log/XLog/Pole	16	100	Balsam Fir	Medium	>20 feet	>20 feet
Swamp White Oak	10	Log/XLog	16		Ash (spp.)	Low	< 5 feet	< 5 feet
Basswood	5	Pole/Log	8		Deciduous Shrubs	Low	5 - 10 feet	5 - 10 feet
Paper Birch	5	Pole	8		Musclewood/Hornbeam	Low	10 - 20 feet	10 - 20 feet

Stand was visited in winter of 2025. Stand conditions are very similar to previous inventory. This stand is on the flood plain of the Muskegon River. It is very wet much of the year having numerous old oxbows. The ash in the stand is either dead or down. The 2010 imagery shows a lot of down woody material. Most of the trees went down between 2005 and 2009 looking at the imagery. The heaviest concentration is in the eastern portion of the stand and around the oxbow that's stand 320. There is a significant amount of conifer in the understory on the alluvial ridges. The conifer is a mix of fir, white pine and some spruce. There is a lot of standing water and numerous beaver runs in the stand.

323 42121 - Planted Jack Pine, Mixed Deciduous Sapling Well 371.1 13 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age
Jack Pine	74	Sapling	2	13
Northern Pin Oak	22	Sapling	1	14
Bigtooth Aspen	2	Sapling	1	
Choke Cherry	2	Sapling	1	

The stand was clearcut in 2012. It was trenched and planted to jack pine with FTP W73-876 and it was completed in 5/2013 for KW habitat. There are 4 narrow strips of pole size jack pine that were left for retention. There is also a noticeable amount of natural jack pine seedling mixed with stump sprout northern pin oak. The overall crown closure is just over 25%. (Note: the flat areas in the stand are heavily infested with mound ants.) Natural regeneration survey was done June 2018. This stand was planted to jack pine with natural oak regeneration. In much of the stand the oak and jack pine are about the same height. They appear to be growing well together. There are some scattered aspen clones also in the stand. 11/2025 Tweedale-well stocked KW JP with oak mixed in.

326 4125 - Black, N. Pin Oak Sapling Well 19.8 17 Immature N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Northern Pin Oak	2	Log	12		Red Pine	Medium	5 - 10 feet	5 - 10 feet
Jack Pine	18	Sapling/Pole	3		Witch Hazel	High	5 - 10 feet	5 - 10 feet
Northern Pin Oak	50	Sapling	2	17				
White Oak	10	Sapling	1					
Bigtooth Aspen	15	Sapling	2	17				
Red Pine	5	Log/Pole	14					

This stand was part of the Hawthorn Mix sale that was harvested in 2009. Jack pine was planted in 2001 with the FTP C73-836. The planted jack pine has a low survival rate. However, there are a lot of volunteers of jack pine, red pine, oak and aspen. The aspen is mainly in scattered clones. There is select log sized red pine throughout the stand. Overall, the stocking level is good, so there is no need for further planting treatments.

327 4191 - Mixed Upland Deciduous with Conifer Unspecified 1.5 11 1-50

This is an upland ridge that goes to the Muskegon River flood plain. There are some pines in the stand but the crown closure is between 15% and 25%. The stand is seeding in from the edges.

328 4131 - Aspen, Oak Poletimber Well 70.9 37 81-110 N/A

Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	70	Pole	6	37	Oak (spp.)	High	10 - 20 feet	10 - 20 feet
White Pine	2	Log/Pole	12		Witch Hazel	High	5 - 10 feet	5 - 10 feet
Northern Pin Oak	18	Sapling/Pole	4		Red Pine	Low	5 - 10 feet	5 - 10 feet
Jack Pine	2	Sapling/Pole	4		Sweet Fern	Low	< 5 feet	< 5 feet
Red Pine	5	Log/Pole	12		White Pine	Low	5 - 10 feet	5 - 10 feet
White Oak	3	Sapling/Pole	4					

The stand is starting to self-thin. Some portions of the stand are heavy to oak and jack pine and other areas are pure aspen. The aspen has the highest density in the northern portion of the stand. The stand has red and white pines scattered throughout. The crown closure is closer to 75%. Stand is on the higher end of 81-110 BA.



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments				
329	6124 - Lowland Spruce-Fir	Poletimber Medium	16.4	89	81-110	N/A	Stand was visited in winter of 2025. Stand conditions similar to previous inventory. The stand is a mixture of cedar, tamarack, white pine, and black spruce with some scattered hardwoods. The hardwoods are mainly ash and are dead, dying, and coming down. There is a lot of windthrow and down woody debris. There is a significant amount of regeneration coming in, which is mainly fir and spruce.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Northern White Cedar		20	Pole	5	121	Balsam Fir		High	10 - 20 feet	10 - 20 feet	
Balsam Fir		40	Pole/Sapling	6	89	Black Spruce		Medium	10 - 20 feet	10 - 20 feet	
Black Spruce		25	Pole/Sapling	6		Northern White Cedar		Medium	>20 feet	>20 feet	
Tamarack		10	Pole/Sapling	6		Tag Alder		Medium	5 - 10 feet	5 - 10 feet	
Red Maple		5	Pole/Sapling	5							
330	6130 - Fir, Aspen, Maple	Sawtimber Well	21.5	106	111-140	N/A	Stand visited in winter of 2025. Stand conditions similar to previous inventory. The stand is on the flood plain of the Muskegon River. It is very wet much of the year. There are some conifers in the understory, which are heavy to balsam firs. There are also some super canopy white pines; especially on the slopes, which is the transition between the flood plain and the uplands. There are also numerous springs and drainages running through the stand as well as some ridges. Overall the stand is not manageable.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Maple		48	Log/Pole/XLog	12	106	Northern White Cedar		Medium	>20 feet	>20 feet	
Northern White Cedar		5	Pole/Log	8	131	Balsam Fir		Full	>20 feet	>20 feet	
Balsam Fir		15	Pole/Sapling	6		White Pine		Medium	10 - 20 feet	10 - 20 feet	
White Oak		2	Log/Pole/XLog	12							
Quaking Aspen		1	Pole	5							
Paper Birch		4	Pole	7							
Red Pine		10	Log/Pole/XLog	12							
White Pine		15	Log/Pole/XLog	14							
331	42110 - Planted Red Pine	Poletimber Well	9.9	70	141-170	N/A	Stand was revisited in winter of 2025. Conditions are similar with the addition of significant autumn olive in the understory near the road and alongside the access trail. the Northern portion of the stand is relatively open. The stand was put up to be thinned in the entry year 1996. The pines are still doing well. The understory is heavy to brush and there are not many trees. The pines are of high quality and there are some utility poles. The stand is wetter along the north edge and in the east end. This is where the oaks, ashes, maples and birch trees are located. However, the ash trees are currently dead or dying.				
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		Density	Avg. Height	Size	
Red Pine		95	Log/Pole	12	70						
Northern Pin Oak		2	Log	12							
Red Maple		2	Pole	8							
Paper Birch		1	Pole	8							
332	629 - Mixed non-forested Wetland	None	20.5			No	Stand visited in winter of 2025. It remains similar to the previous inventory. This stand is a drainage and much of it is non-forested. There is a small creek that runs through the stand. Also, in the past there was beaver activity that flooded out a portion of the stand, killing it. Since then, the beaver pond has drained and some trees are starting to seed in, especially in the northern 1/2 of the stand. There is a fully forested drier island that is located in the west part of the stand. Much of what is coming in is jack, red, and white pine with some spruce and tamarack. The jack pine has heavy galls and some leader kill.				
Sub-Canopy Species		Density	Avg. Height	Size							
Red Pine		Low	5 - 10 feet	5 - 10 feet							
Jack Pine		Medium	5 - 10 feet	5 - 10 feet							
Black Spruce		Low	5 - 10 feet	5 - 10 feet							
Balsam Fir		Low	5 - 10 feet	5 - 10 feet							



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
333	42110 - Planted Red Pine	Sapling Well	36.7	6	Immature	N/A	Stand is looking good, red one is growing nicely with inclusions of oak and Jack pine. Small pocket of mortality in the central part of the stand. Year 3 regeneration survey: 865 TPA, 8.5% mortality, 90% FTG. Stand passes regeneration check as a fully stocked red pine plantation. Stand surveyed in FY 2021 by contractors (1yr). Data shows 864 TPA of red pine and 97% FTG. Stand was harvested 5/2019. Windy Night Salvage 73-15-08. Site prep sprayed 9/2020. Stand planted spring 2021.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Pine		90	Sapling	1	6		
Northern Pin Oak		5	Sapling	1			
Jack Pine		3	Sapling	1			
Black Cherry		2	Sapling	1			
334	42121 - Planted Jack Pine, Mixed Deciduous	Sapling Well	7.3	11	Immature	N/A	Jack pine is coming in strong with inclusions of oak and red maple. The stand was clearcut in the spring of 2015. There are currently some maple stump sprouts but it is sparse. There are a lot of branches left on the site and many cones, most are still closed. Hand seeded winter 2017.
Canopy Species		% Cover	Size Class	DBH	Age		
Red Maple		35	Sapling	1			
Jack Pine		60	Sapling	2	11		
335	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	9.3	6	Immature	N/A	Stand cut under Blueberry Ridge 73-008-18. Hilly terrain. The terrain is undulating. There is a high ridge just north of stand 337. The stand has significant oak mortality and there is a lot of down wood. There is a wet swale in the finger of the stand that goes north. The stand is a mixture of pines and hardwoods. The crown closure is around 85%.
Canopy Species		% Cover	Size Class	DBH	Age		
Northern Pin Oak		35	Sapling	2	6		
Jack Pine		20	Sapling	2			
White Pine		15	Sapling	2			
Bigtooth Aspen		15	Sapling	2			
336	4191 - Mixed Upland Deciduous with Conifer	Sapling Well	39.0	11	1-50	N/A	Regen survey conducted in winter of 2025. Stand meets minimum stocking requirements. Stand has a large white pine component.
Canopy Species		% Cover	Size Class	DBH	Age		
White Oak		5	Sapling	1			
Bigtooth Aspen		30	Sapling	2	11		
Northern Pin Oak		20	Sapling	1			
White Pine		20	Pole/Log	8	76		
Jack Pine		10	Sapling	2			
337	629 - Mixed non-forested Wetland	None	8.0			No	The stand is in a swale. The cover is a mix of marsh grass and alder. There are some scattered white pines.
339	6124 - Lowland Spruce-Fir	Poletimber Well	22.6	109	111-140	N/A	Stand visited in winter of 2025. the stand remains similar to the previous inventory. There is a drainage going through the stand and it is very wet overall. The ash is dead and coming down creating numerous canopy gaps. The edges of the stand have steep slopes. There are numerous age classes in the stand ranging from seedling to extra-large sawlogs.
Canopy Species		% Cover	Size Class	DBH	Age		
White Pine		20	XLog/Log	20	118		
Balsam Fir		30	Pole/Sap/Log	9			
Black Spruce		35	Pole/Sap/Log	9	109		
Red Pine		3	XLog/Log	18			
Red Maple		10	Log/Pole	10			
Northern White Cedar		2	Pole	7			
Sub-Canopy Species		Density	Avg. Height	Size			
Northern White Cedar		Low	>20 feet	>20 feet			
White Pine		Medium	10 - 20 feet	10 - 20 feet			
Balsam Fir		High	10 - 20 feet	10 - 20 feet			
Black Spruce		Low	>20 feet	>20 feet			
Deciduous Shrubs		Low	5 - 10 feet	5 - 10 feet			



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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340	500 - Water	None	3.0			No	This is one of the existing oxbows of the Muskegon River.
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341	42290 - Natural Mixed Pine	Poletimber Medium	26.9	93	81-110	N/A	The stand was thinned in 1996 by removing the hardwoods and marked trees. The regeneration of aspen and maple is good. The residual oak and jack pine has significant mortality and it is coming down. There are areas of aspen, oak and red maple regeneration visible on the imagery. However, they are below the dominate and co-dominate trees. So they were not counted in the crown closure.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
White Pine	55	Pole/Log/XLog	9	93	Bigtooth Aspen	High	10 - 20 feet	10 - 20 feet
White Oak	20	Log/Pole/XLog	14		White Pine	High	>20 feet	>20 feet
Northern Pin Oak	6	Log	12		Oak (spp.)	Medium	10 - 20 feet	10 - 20 feet
Red Pine	15	Log/Pole	10		Blueberry/Bilberry/Cranberry	Full	< 5 feet	< 5 feet
Jack Pine	4	Pole	8		Red Maple	Medium	>20 feet	>20 feet
					Deciduous Shrubs	High	5 - 10 feet	5 - 10 feet

342	4130 - Aspen	Sapling Well	5.2	29	1-50	N/A	The stand has regenerated well, for the most part, there are a couple of sparse areas along the north and west sides. There is scattered white pine throughout the stand. Most are log sized. The crown closure is around 80%. There are areas of thick oak regeneration. The terrain is rolling and drops in elevation going to the north.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Bigtooth Aspen	85	Sapling/Pole	4	29	Northern Pin Oak	Low	5 - 10 feet	5 - 10 feet
Red Maple	5	Sapling/Pole	3					
White Pine	10	Pole/Log	6					

343	42110 - Planted Red Pine	Sawtimber Medium	19.4	93	111-140	N/A	Stand visited again in winter of 2025. It remains similar to the previous inventory. The stand had the hardwoods removed about 18 years ago. The red pines ring spacing shows the release from that harvest. The stand has some regeneration mainly in the areas of lower crown closure. The regeneration is heavy to oaks, pines, and aspens. Overall the stand is now a red pine stand with a hard wood understory.
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Canopy Species	% Cover	Size Class	DBH	Age	Sub-Canopy Species	Density	Avg. Height	Size
Red Pine	75	Log/XLog	15	93	Blueberry/Bilberry/Cranberry	Full	< 5 feet	< 5 feet
White Pine	25	Pole/Log	9		Witch Hazel	Medium	5 - 10 feet	5 - 10 feet
					Oak (spp.)	High	5 - 10 feet	5 - 10 feet
					White Pine	Low	5 - 10 feet	5 - 10 feet
					Red Maple	Medium	>20 feet	>20 feet
					Bigtooth Aspen	Medium	>20 feet	>20 feet
					Red Pine	High	5 - 10 feet	5 - 10 feet

344	4191 - Mixed Upland Deciduous with Conifer	Sapling Medium	21.2	12	Immature	N/A	In October of 2014 the stand was harvested as a clearcut with reserves. The harvest left the white and red pines. In addition some oaks were marked for retain. The stand is just starting to regenerate. The regeneration is heaviest along the road. The south and eastern portion of the stand looks to be a little wetter.
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Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	35	Sapling	3	12
White Pine	15	Sapling	2	
Red Pine	5	Log	14	
Black Cherry	10	Sapling	2	
Bigtooth Aspen	25	Sapling	2	



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
345	4130 - Aspen	Poletimber Well	56.0	38	81-110	N/A	Stand was visited in winter of 2025. The current condition is similar to the previous inventory. The stand was harvested in 1987 and has regenerated well overall. The stand has a heavy understory of maple. Currently the stand is self-thinning so there is a lot of down woody material. There are several open pockets in the stand that are heavier to oak and pine.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Bigtooth Aspen		93	Pole	6	38	Deciduous Shrubs		
Northern Pin Oak		2	Sapling	4		Red Maple		
Red Maple		2	Sapling/Pole	4		Oak (spp.)		
Red Pine		1	Pole/Sapling	5		White Pine		
White Oak		1	Sapling	4				
White Pine		1	Log/Pole	12				
346	3303 - Mixed Low Density Trees	None	9.5			No	A portion of this stand was a barrow pit for gravel. Much of the stand is vegetated with some pine starting to seed in.	
Sub-Canopy Species		Density	Avg. Height	Size				
Northern Pin Oak		Low	>20 feet	>20 feet				
Paper Birch		Low	>20 feet	>20 feet				
Red Pine		Low	>20 feet	>20 feet				
Bigtooth Aspen		Low	>20 feet	>20 feet				
347	4125 - Black, N. Pin Oak	Poletimber Medium	5.4	28	1-50	N/A	The stand has grown significantly since the most recent inventory. Canopy cover is around 65-70%. Stand is moving into the pole size class. The ground cover is grass and blueberry. Some small white pine and oak are coming up underneath the canopy layer.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Northern Pin Oak		70	Pole/Sapling	6	28	White Pine		
Pin Cherry		20	Pole/Sapling	5		Northern Pin Oak		
Jack Pine		5	Sapling	2				
White Oak		5	Pole/Sapling	6				
348	4191 - Mixed Upland Deciduous with Conifer	Poletimber Medium	20.0	31	51-80	N/A	Haskel Lake is along the south end of the stand. The pines are concentrated at the north end but it is also scattered throughout. There are numerous two-track roads running through the stand. Some of these are RDRs. The oak in the stand has significant die off because of age.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Northern Pin Oak		20	Pole/Log	9		White Pine		
White Oak		15	Pole/Log	9		Deciduous Shrubs		
Jack Pine		10	Pole	8		Oak (spp.)		
White Pine		15	Pole/Log/Sap	7				
Red Maple		5	Pole/Sapling	5				
349	4131 - Aspen, Oak	Sawtimber Well	10.0	58	111-140	N/A	The stand is mostly oak sawlogs near Old State and Haskel Lake Road. The east 1/2 - 1/3 of the stand is aspen. The terrain is rolling. The stand has a couple of large grassy opening with some scattered large crown oak in it. Large oak and Aspen are declining. Many snags are present throughout the stand There are also several trails going through the stand. The southern end of the stand butts up against the Haskel Lake RDR.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Northern Pin Oak		5	Log/XLog	14		White Pine		
White Pine		2	XLog/Log	20		Red Maple		
Red Oak		20	Log/XLog	16		Oak (spp.)		
White Oak		10	Log/XLog	16				
Red Pine		3	XLog/Log	18				
Bigtooth Aspen		50	Pole/Log	9	58			
Red Maple		10	Pole	8				



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments	
350	42250 - Pine, Oak	Poletimber Well	30.2	61	81-110	N/A	The stand is heavy to oak/pine along the east side and it grades to aspen/oak along the west side. Aspen is growing in clumps. There are 3 depressions in the stand that are vernal ponds. The southern one is the largest and they get progressively smaller going north. The northern most one is more of a lowland shrub swale than a vernal pond. Much of the stand is upland but there are some lower areas in the eastern portion. The crown closure is around 80%.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
White Pine		50	Log/Pole/XLog	12	61	White Pine		
White Oak		15	Pole/Log/Sap	9		Oak (spp.)		
Northern Pin Oak		20	Pole/Log/Sap	9		Blueberry/Bilberry/Cranberry		
Red Pine		5	Log/Pole	10		Density		
Bigtooth Aspen		5	Pole/Log	8		Avg. Height		
Jack Pine		5	Log/Pole	10		Size		
351	6229 - Mixed Lowland Shrub	None	2.7			No	Lowland alder thicket with pockets of dogwood present.	
352	42220 - Natural Jack Pine	Poletimber Well	140.9	52	81-110	N/A	The terrain is rolling with pockets of low wet ground. The oak in the stand is on the ridges. The jack pines ranges in diameter from 3" to 9" DBH. There is some canopy gaps open allowing some jack pine regeneration. The white and red pines are mainly in the southwest corner. The snowmobile trail runs through the southern portion of the stand. (Note: The stand is heavily infested with mound ants.)	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Jack Pine		85	Pole	7	52	Jack Pine		
White Pine		1	Log/XLog	15		Density		
Red Pine		1	Log/XLog	15		Avg. Height		
Quaking Aspen		1	Sapling/Pole	4		Size		
Northern Pin Oak		10	Pole	5				
White Oak		2	Pole	5				
353	4131 - Aspen, Oak	Poletimber Well	19.2	36	51-80	N/A	The stand is heavy to aspen/oak with some jack pine in the north end. Oak is starting to decline in the north portion of the stand. The south east corner has some white pine especially along the drainage. The terrain is rolling.	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Bigtooth Aspen		50	Pole	6	36	White Oak		
Red Maple		20	Pole/Sapling	5		White Pine		
Northern Pin Oak		10	Pole/Log	7		Red Maple		
White Oak		10	Pole/Sapling	6		Witch Hazel		
White Pine		5	Log	10		Density		
Jack Pine		4	Pole	5		Avg. Height		
Red Pine		1	Pole/Sap/Log	8		Size		
354	4122 - Oak, Pine	Poletimber Medium	27.2	51	51-80	N/A	The stand density is variable going from poor to well stocked. The crown closure averages around 70%. the gaps are mostly empty and there is little understory coming up. There are inclusions of grassy openings and lowland shrubs. There are scattered aspen clone in the stand. The oak in the stand is mostly of stump sprout origin and are beginning to decline. The terrain is undulating. (Note: the flat areas in the stand are heavily infested with mound ants.)	
Canopy Species		% Cover	Size Class	DBH	Age	Sub-Canopy Species		
Northern Pin Oak		45	Pole	7	51	Oak (spp.)		
White Oak		15	Pole/Sapling	5		White Pine		
White Pine		2	Pole/Sapling	5		Density		
Jack Pine		30	Pole	6		Avg. Height		
Bigtooth Aspen		8	Pole/Log	8		Size		



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments
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355	6225 - Bog	None	2.4			No	This stand is in a depression that contains leather leaf. There are pines on the site and the crown closure is approaching 15%.

Sub-Canopy Species	Density	Avg. Height	Size
Leatherleaf	Full	< 5 feet	< 5 feet
Jack Pine	Low	10 - 20 feet	10 - 20 feet

356	4130 - Aspen	Poletimber Well	6.3	29	81-110	N/A	Stand visited in winter of 2025. the conditions are similar to past inventory. Aspen clones are developing into log sized trees. The stand is made up of aspen clones. Some red pines were planted in it when stand 357 was planted. There are some scattered white pines along the southwest edge. The oak is concentrated along the south west edge.

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	88	Pole/Log	7	29
Northern Pin Oak	1	Log/Pole	10	
Red Maple	8	Sapling	2	
Red Pine	3	Sapling	2	26

Sub-Canopy Species	Density	Avg. Height	Size
Red Maple	Medium	>20 feet	>20 feet
Red Pine	Low	5 - 10 feet	5 - 10 feet
Oak (spp.)	Low	5 - 10 feet	5 - 10 feet

357	42111 - Planted Red Pine, Mixed Deciduous	Poletimber Well	37.5	26	1-50	N/A	The stand was planted to red pine. The pine has not started to self-prune and therefore the understory is sparse. There are some scattered aspen clones and scattered patches of oak and cherry in it. Most of the hardwoods appear to be of sprout origin. The current crown closure is around 75%. This area is a mixture of red pine, oak, aspen, red maple, and white pine.

Canopy Species	% Cover	Size Class	DBH	Age
Red Pine	65	Sapling/Pole	4	26
Northern Pin Oak	15	Sapling/Pole	3	
White Oak	10	Sapling	3	
Jack Pine	8	Sapling/Pole	3	

358	4136 - Aspen, Mixed Conifer	Poletimber Well	12.7	51	81-110	N/A	The stand has a low depression that runs south to north, more or less. This area is very wet and has some cedar and spruce in it. The southern end is heavy to white pine. It also has some pockets of balsam fir in the understory along the east side. The oak is heaviest along the NW edge. There are many aspen snags found in the depression being used by pileated woodpecker.

Canopy Species	% Cover	Size Class	DBH	Age
Bigtooth Aspen	35	Pole/Log	8	51
Quaking Aspen	20	Pole/Sapling	5	
Paper Birch	10	Sapling/Pole	4	
Red Maple	10	Pole/Sapling	5	
Northern White Cedar	15	Log	10	
White Pine	10	Pole/Log	9	

Sub-Canopy Species	Density	Avg. Height	Size
Northern White Cedar	Low	>20 feet	>20 feet
Balsam Fir	Low	>20 feet	>20 feet
Red Maple	Medium	>20 feet	>20 feet
Deciduous Shrubs	Medium	5 - 10 feet	5 - 10 feet

359	4125 - Black, N. Pin Oak	Poletimber Medium	9.8	51	51-80	N/A	The stem density increases going to the south as does the white pine. Crown closure is lower around 65-70%. These gaps are being filled primarily by oak seedlings. The oak is mostly of stump sprout origin. There are some declining oaks but not a large portion. The terrain is undulating. Mound ants colonies are common throughout the stand.

Canopy Species	% Cover	Size Class	DBH	Age
Northern Pin Oak	55	Pole/Log	7	51
White Oak	15	Pole/Sapling	7	
Jack Pine	10	Pole	7	
Red Pine	10	Pole/Sap/Log	8	
White Pine	5	Pole/Sapling	6	
Red Maple	5	Sapling/Pole	4	

Sub-Canopy Species	Density	Avg. Height	Size
Jack Pine	Low	5 - 10 feet	5 - 10 feet
White Pine	Low	5 - 10 feet	5 - 10 feet
Oak (spp.)	High	5 - 10 feet	5 - 10 feet
Red Pine	Low	5 - 10 feet	5 - 10 feet



Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																																								
360	6113 - Lowland Maple	Sawtimber Well	6.4	103	51-80	N/A	Portions of the stand have been treated as a seed tree and has a thick layer of red maple in the understory. Larger oak and white pine remain in the stand. There is a large wet area in the stand that contains only shrubs. The terrain is a mix of upland knobs and low wet draws. The ash in the stand is dead or dying.																																																								
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Oak (spp.)	Low	10 - 20 feet	10 - 20 feet																																																												
361	42200 - Natural White Pine	Sawtimber Well	3.3	85	141-170	N/A	This is a pocket of white pine that sits on a ridge. The diameter goes from seedling to 24" DBH. There are some inclusions of oak in the stand. the understory is relatively empty with some suppressed white pine.																																																								
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401	42120 - Planted Jack Pine	Sapling Well	47.9	22	Immature	N/A	The stand was harvested in 2003. Then it was interplanted with jack pines in 2004. There are some small aspen clones scattered in the stand. The jack pine is doing well and is working its way into the pole class.																																																								
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402	4310 - Pine, Oak Mix	Sawtimber Medium	21.5	100	51-80	N/A	The stand was harvested in 2003 by removing the jack pine. After the harvest the white pine poles have a greater percentage of the crown space. The oaks seem to have a high mortality and they are starting to come down. Some areas are mo4r4e dense with BA closer to 100 and some areas are open due to the dying oak. In the stand where the BA is < 40 Sq. Ft. there is good oak regeneration starting. Consider managing with the adjacent low density stand.																																																								
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405	3302 - Low Density Conifer Trees	None	4.6			No	The stand is filling in with jack pine. There is significant ORV activity that is disturbing the stand. Spotted knapweed is very common. considering managing with adjacent oak/pine stand.																																																								
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406	6129 - Mixed Coniferous Lowland Forest	Poletimber Well	47.3	105	81-110	N/A	Stand visited in winter of 2025. Stand conditions remain similar to the previous inventory. The terrain is hummocky. There is an upland knob in the west end. This knob has oak and white pine. Going south and east the stand has more cedar and fir. Black spruce is more concentrated along the north edge of the stand. There is high mortality in the cedar and in some of the fir and spruce. The density in the stand is variable going from a BA 10 to 100. There are a lot of crown gaps in the stand that are filling in with tag alder.																																																								
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Stand	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	Managed Site	General Comments																																												
407	4310 - Pine, Oak Mix	Sapling Well	17.1	22	Immature	N/A	The stand was interplanted with red pine. It is coming along well. It is becoming more dominant in the stand. The red pine is not self pruning yet. The crown closure is closer to 75%. So there are some openings in the crowns.																																												
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408	42140 - Planted Mixed Pine	Sawtimber Well	8.7	87	111-140	N/A	Stand is around a gas injection well. The J pine in the stand is declining and there are many snags. Some oak mortality is also present. This stand was left as a buffer too break up the visual impact of a harvest. The jack pine is more common at the north east corner and red pine through the rest of the stand. Basal area is variable throughout the stand. Check planting records. Recommend to manage with adjacent hardwood stand due to size.																																												
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410	623 - Emergent Wetland	None	2.0			No	This is a large area of emergent wetland made up of marsh grass and cattails. The northern edge and the perimeter have some conifer cover but not much.																																												
419	4132 - Aspen, Jack Pine	Sapling Well	35.8	33	1-50	N/A	This stand was harvested in 1993 to remove all trees 2" and up. The stand has some low pockets but overall, it is dry. The stand is young and still remains in the sapling class. Much of the planted jack pine is now over topped by the aspen and oak. The crown closure is closer to 75%. So, there are numerous openings, and some are traditional hunting camps.																																												
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420	42120 - Planted Jack Pine	Sapling Well	19.7	12	Immature	N/A	The stand was harvested as a clearcut with retention in May of 2012. It was trenched in the fall of 2012 and planted with jack pine in the spring of 2013 with FTP C73-907. The jack pine has a good survival rate and is developing well. There is also some oak regeneration in the stand. The oak seedlings are throughout the stand. The retention pocket looks good but there are some stem breakages and wind throw around the edges. The regeneration was check in May 2016 and the stand had on avg 1300 stems/ac.																																												
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